

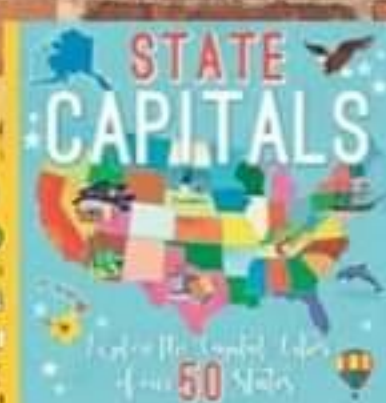


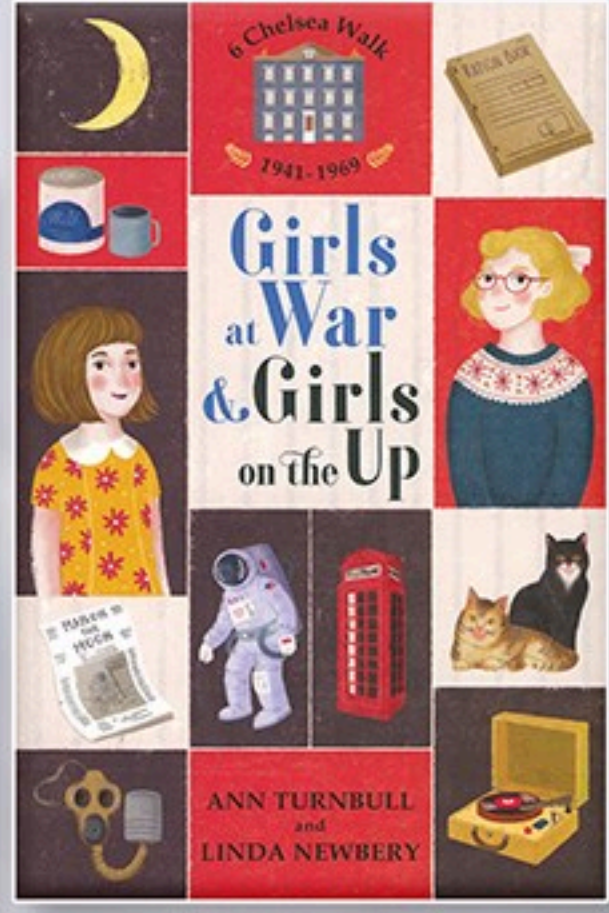
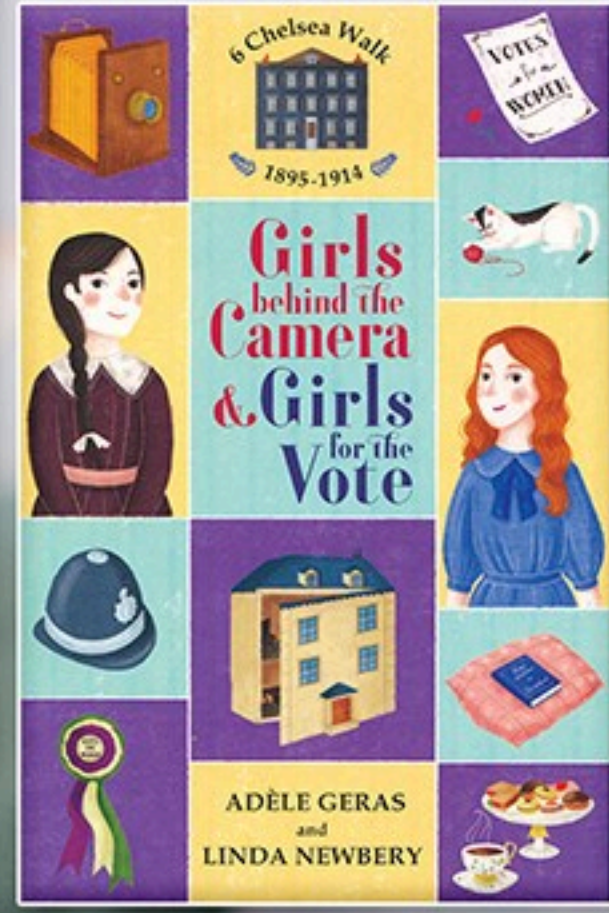
5th Grade

Collection

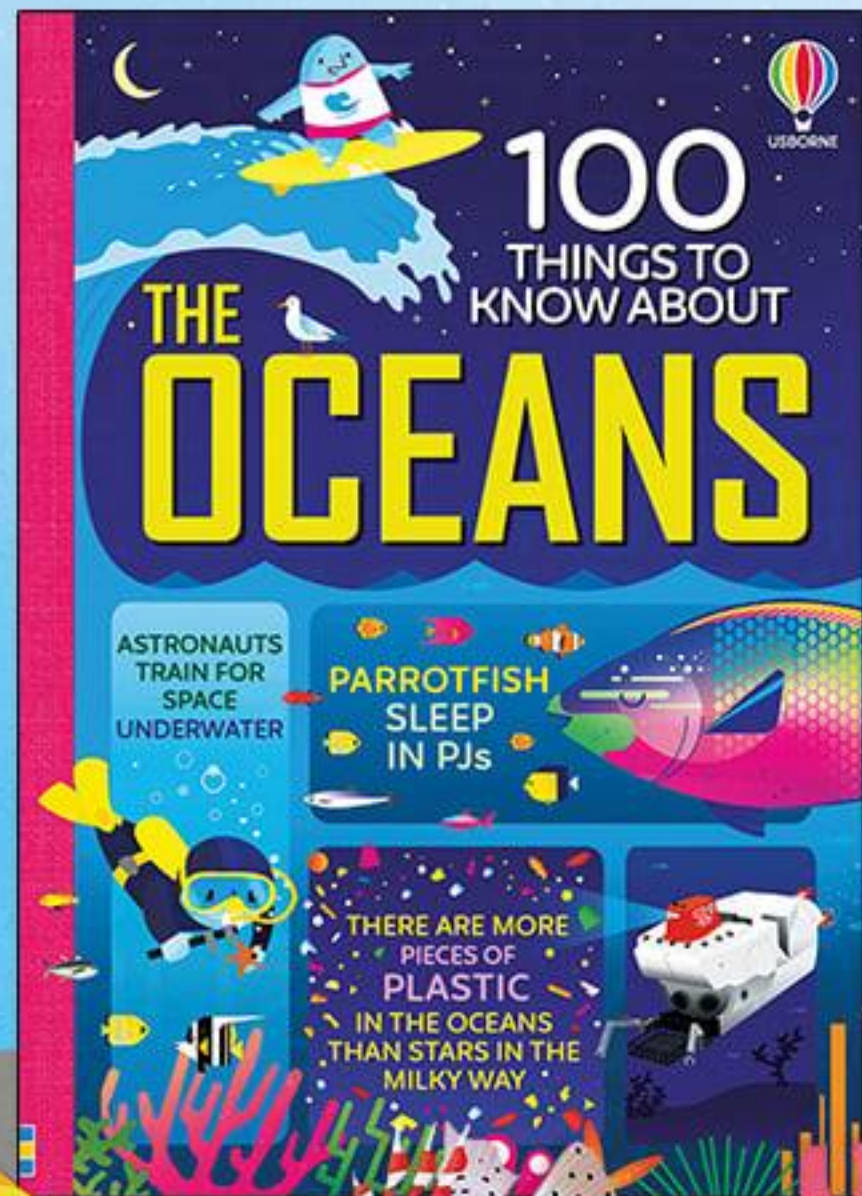


USBORNE
BOOKS & MORE
Independent Consultant





A thought-provoking series that explores feminist history in Britain through the lives of fictional characters living in one real-life house – 6, Chelsea Walk, London.

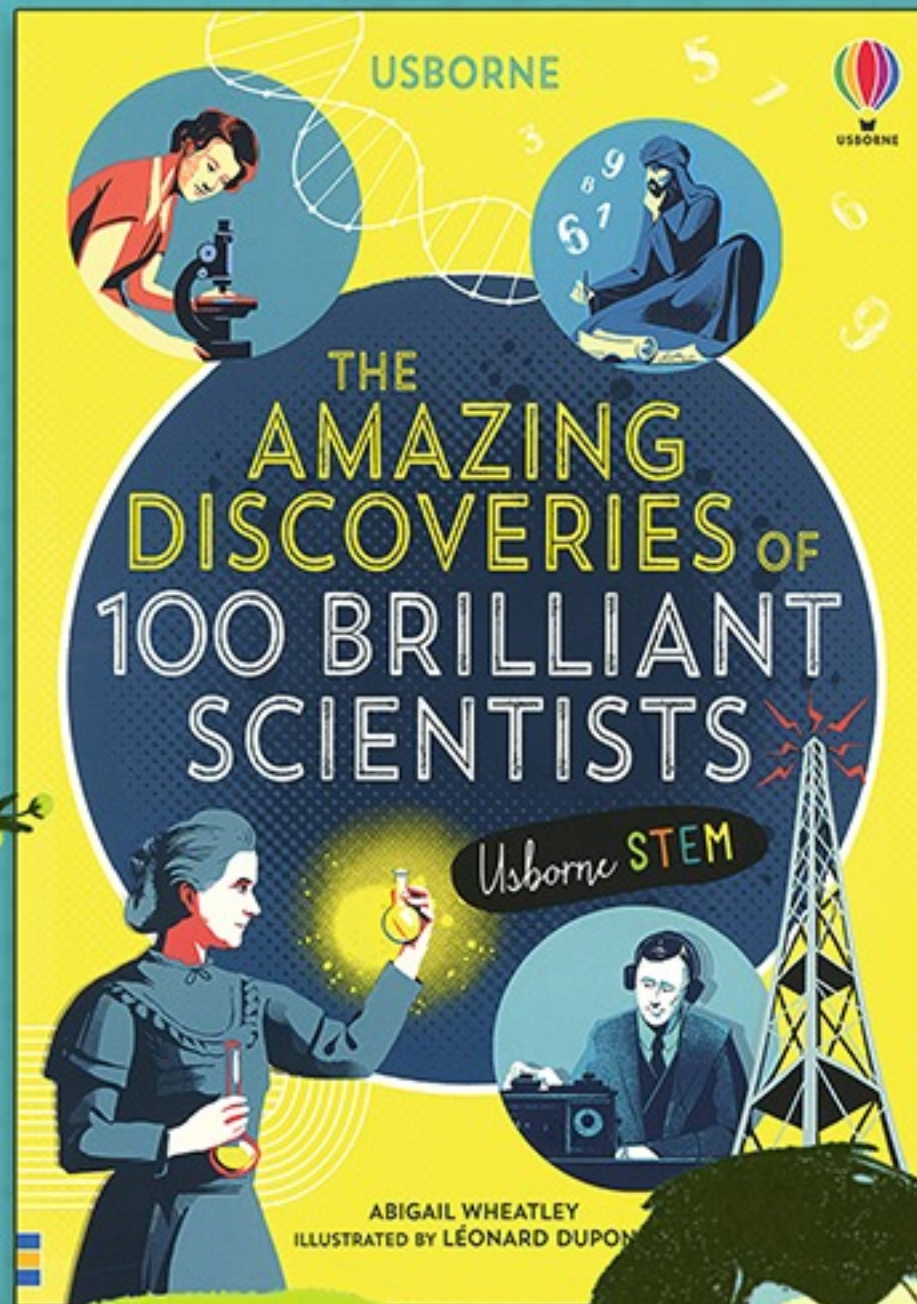


Dive into a world of
DISCOVERY
with these titles!



These friendly books break info down into bite-sized chunks, making them an accessible introduction for anyone who wants to find out about these fascinating subjects.

DISCOVER A BRILLIANT TITLE!



HOW SECRET WARTIME CODES REVEALED A COMPUTING GENIUS

During the Second World War, different **code-breaking machines** were created by several remarkable scientists. One of these scientists was **Alan Turing**, a British mathematician so far ahead of his time that he wrote about **computers** before they even existed. His code-breaking machine brought computers one step closer.

BEGINNINGS

Turing first published his ideas about computers in 1936, calling them **Turing machines** – though at that time they existed only in his imagination. When the Second World War broke out in 1939, Turing went to work for the British military, cracking **codes** used by their enemies, the Germans.

These codes had been created using devices called **Enigma machines**. Inspired by a Polish code-breaking machine, Turing designed the **Bombe** – a machine with hundreds of rotating cylinders powered by **electricity**.

BRILLIANT BOMBE

The Bombe **decoded** Enigma messages quickly. Historians believe this may have **shortened the war** by two years and **saved as many as 14 million lives**.



More than this, Turing's **ideas** about computers have gone on to influence generations of **computer scientists**.

A COLOSSAL EFFORT BUILT THE VERY FIRST COMPUTER

The first ever **programmable electronic computer** was nicknamed **Colossus**, and cracked the most difficult codes invented during the Second World War. It was designed and built by a British engineer named **Tommy Flowers**.

SETTING TO WORK

In 1943, Flowers was asked to design a machine to crack a very complex German code – the **Lorenz cipher**. Alan Turing and other code-breakers had found a slow, long-hand method for breaking the cipher, but needed a machine to speed things up.

Flowers worked on a machine that used **electrical circuits** made from glass **vacuum tubes**. These weren't always dependable, but Flowers believed he could build a more powerful, reliable machine using thousands of vacuum tubes.

JUST IN TIME

The code-breakers dismissed Flowers' idea, but he continued, designing and building a **vast machine** named **Colossus**. It worked. Then, in 1944 an upgraded version of it broke codes relating to the D-Day landings – operations that **changed the course of the war**.

Colossus was the **world's first** programmable, electronic, digital computer. At the end of the war, Flowers was ordered to **destroy** it, to protect national security. So, his contribution to computing went unrecognized for many years.

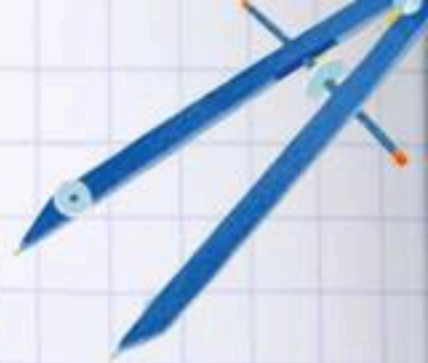


Every scientist dreams of doing something that can help the world.

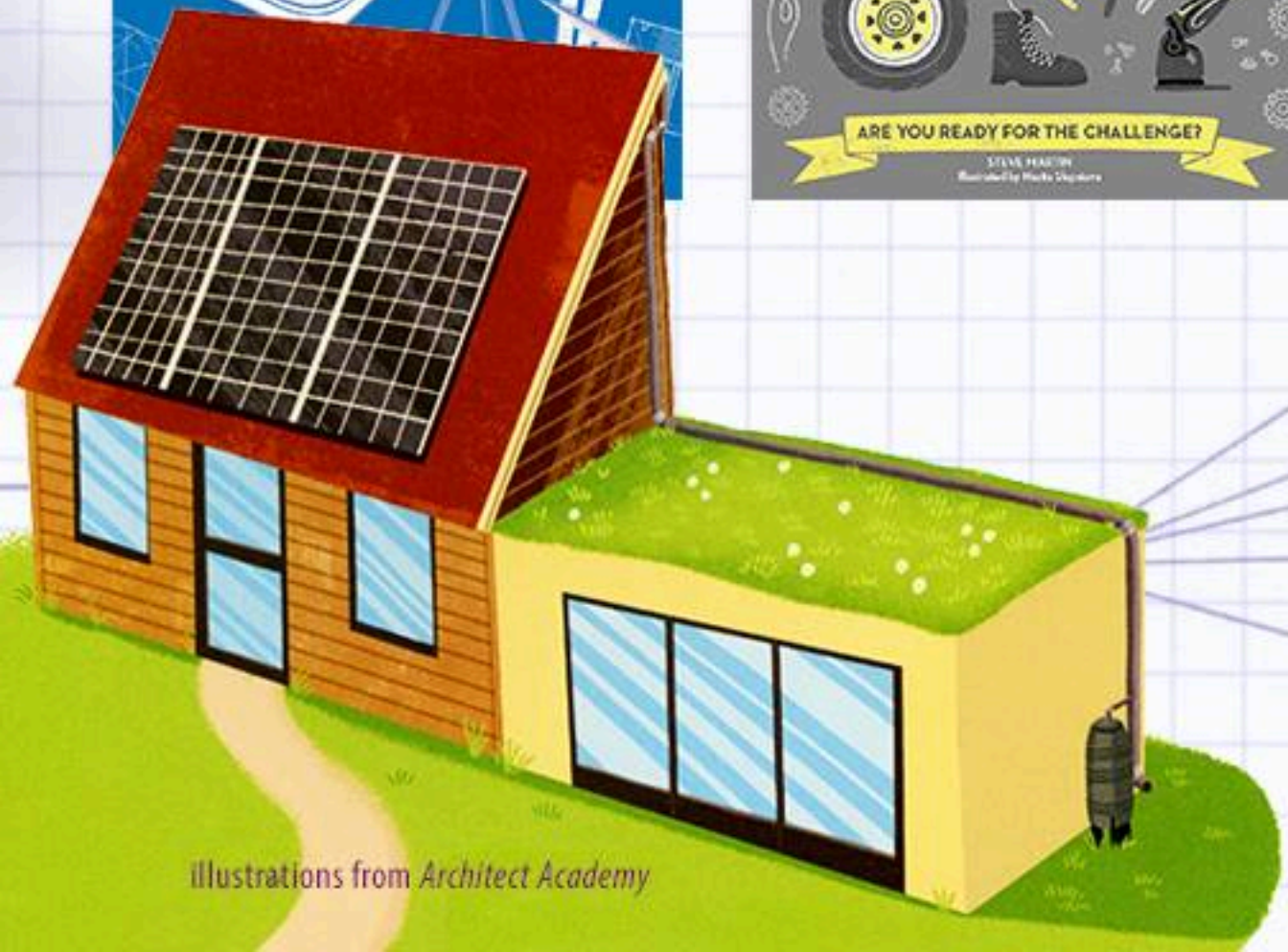
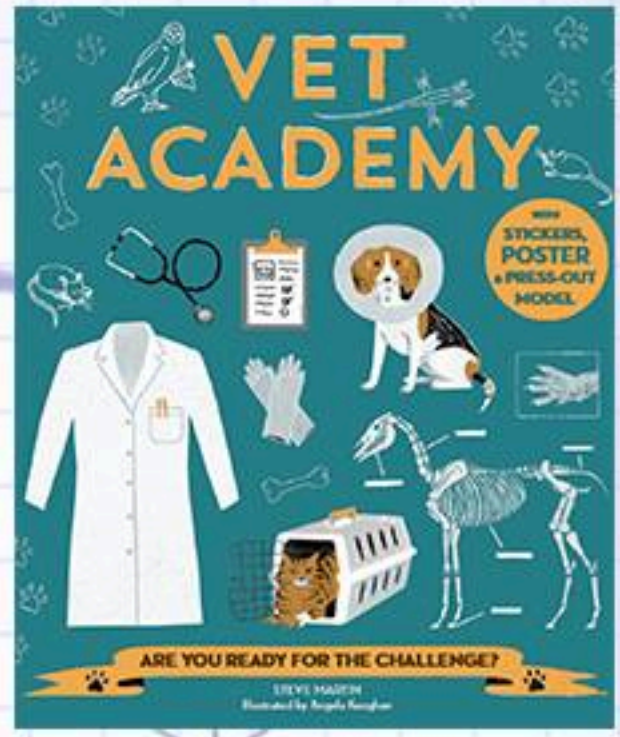
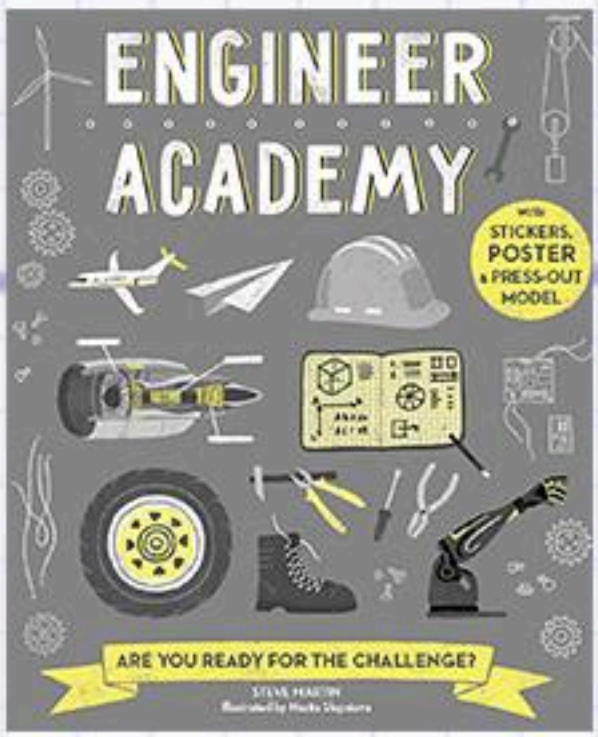
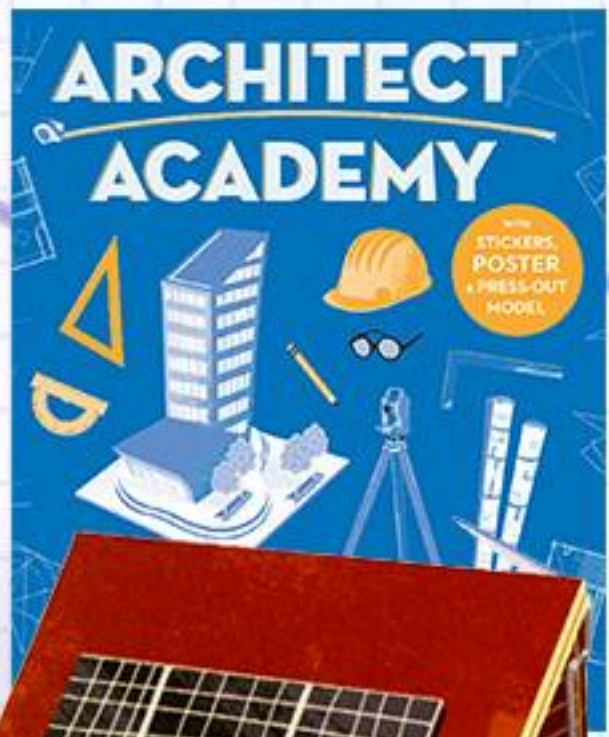
Discover the lives and incredible work of some of the greatest scientists – many of them very famous, but also some who made great contributions but are not as famous as they ought to be. Most scientists have their own page, while some scientists who worked together are grouped on one page. Learn about the amazing scientific breakthroughs they have made in this informational book, with engaging graphics.



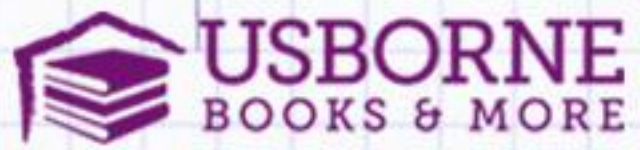
CHECK OUT *the*



ACADEMY SERIES!



illustrations from *Architect Academy*



THE BIOLOGY OF BANANAS



DISCOVER AND LEARN WITH 20 EXPERIMENTS



THE CURIOUS WORLD OF KITCHEN SCIENCE
KATIE STECKLES

THE CHEMISTRY OF COLA

DISCOVER AND LEARN WITH 20 EXPERIMENTS



THE CURIOUS WORLD OF KITCHEN SCIENCE
DR. JAMIE GALLAGHER



NEW SERIES!

EXPLORE THE KEY PRINCIPLES AND PRACTICES OF EVERYDAY SCIENCE BY USING ANALOGIES, EXPERIMENTS, AND RESEARCH WITH FOOD AND DRINK IN THE HOME KITCHEN ENVIRONMENT!

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EXPERIMENT: ICE AND OIL

When you add ice to your drink, the ice cubes will float and gradually melt away. But since cola is almost entirely water, it isn't possible to see the melted ice mix with the liquid already in the glass. So, in this experiment, you will see very clearly the density difference between water and ice by separating the two with a layer of oil.

Water and oil don't like to mix. Pages 18–19 explained that water is made of one oxygen and two hydrogen atoms in a "V" shape. This molecule is "polar," which means it has a positive charge at one side and a slight positive charge at the other. Oils, on the other hand, are made of long carbon chains and are nonpolar (or, less polar than water).

Polar molecules are drawn to other polar molecules, so water molecules like to stick together. If you try and mix a nonpolar liquid with water, the water

molecules will draw together because of their uneven electron charge and be repelled by the nonpolar liquid.

Since the water and oil won't mix, the least dense liquid will form a layer on top of the other one. Water is denser than most cooking oils, so in this experiment the vegetable oil will float on the surface of the water. Ice, however, is less dense than water, and also less dense than many cooking oils, so the oil will float on the water, and the ice will float on the oil.

YOU WILL NEED:

- 1 tall, thin, transparent glass, tube, or measuring cylinder
- 200 ml (7 fl. oz.) of vegetable oil
- 200 ml of water
- Red or blue food coloring (optional)
- Ice cube tray (and water to fill it)

WHAT TO DO:

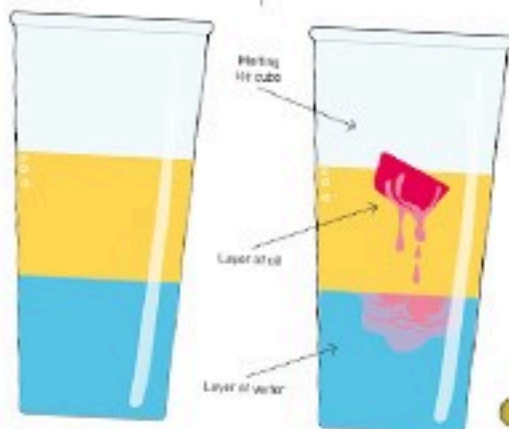
1. Make ice cubes (the cubes with food coloring will be easier to see, but they aren't essential).

2. Add the water and the vegetable oil to the transparent container. Leave them to separate out, until the oil is floating on top of the water.

3. Add a completely frozen ice cube to the oil. It should float near the top.

4. Watch as the ice begins to melt, and the denser water drips down through the oil to join the rest of the water below.

5. Eventually so much of the ice will have melted that the weight of the water will drag the whole cube down, though it might also happen if water drips off the cube.



EXPERIMENT: MAKING CELL COOKIES

A great (and delicious) way to remember all the parts of a cell is to decorate some cookies to look like different kinds of cells. Pick your favorite type of cell from pages 12–13—or do them all! Use the diagrams to see what you'll need to include.

YOU WILL NEED:

- Plain cookies (round, rectangular, or uneven shaped)
- Different colors of ready-made frosting in squeezable tubes
- Different sizes of candy sprinkles, chocolate chips, and other tasty things to stick on

WHAT TO DO:

1. Decide what type of cell you're going to make—animal, plant, yeast, or bacteria—or maybe make one of your own!

2. For each of the parts of the cell you want to make, decide which type of decoration is going to represent it. You could use frosting to pipe a cell wall around the outside, a large candy for the nucleus, green gumdrops for the chloroplasts, a marshmallow for the vacuole, and sprinkles for the tiny ribosomes.

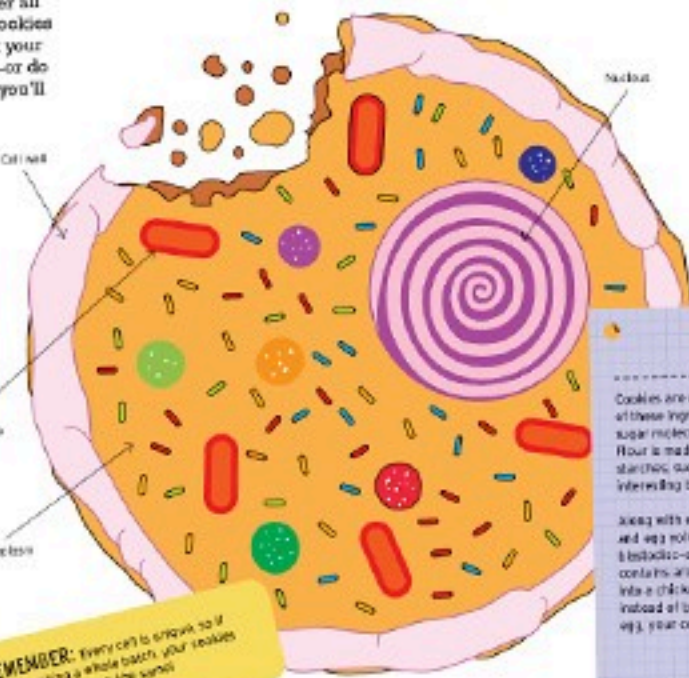
3. Use frosting to stick the candies on the cookies in the right arrangement.

4. Show and enjoy delicious cell cookies! Ask people if they can identify what all the parts are.

CELLS IN YOUR CELLS

Cookies are usually made with flour, sugar, butter, and eggs. Most of these ingredients don't include any cells—sugar is made up of sugar molecules, and butter is a mixture of fats and proteins. Flour is made by grinding up wheat kernels, and is a mixture of starches, sugars, and proteins. But the egg contains the most interesting biology! Read all about it on pages 70–79.

Adding egg whites (which is mostly water, with a little protein, and egg yolk (high in fats and proteins), the egg also contains a little bit of a small white dot on the surface of the yolk, which contains around 20,000 cells. These are what might have grown into a chicken if the egg had been fertilized and incubated. Instead of being made into cookies, so if they were made with egg, your cell cookies could contain the remnants of actual cells!



BUILD YOUR OWN WEBSITE!



5. Add a second picture below the site banner by typing in this.

```


    
```

Note: style="float: right; width: 100px; height: 100px; border: 1px solid black; margin-top: 10px; margin-left: 10px;" puts different types of code in different colors. Tags are blue. Attributes are red. Anything between quotation marks (" ") is purple.

6. Now it's time to introduce your website. Type the following and close your <section> tags.

```

<section>
  <p>Welcome to the Fox Hill Community Space website. From art to music to ping pong, you will find out everything you need to know about our community space and what goes on here.</p>
  <p>Make yourself at HOME on our homepage and have fun exploring the site.</p>
</section>
    
```

7. Finally, add a footer at the bottom or FOOT of your page, like this. Then close your <body> and <html> tags.

```

<body>
  <div style="text-align: center; padding-top: 20px; font-size: small; color: gray;">
    <small>Made by A. Fox</small>
  </div>
</body>
</html>
    
```

A footer usually contains information about who made the page, contact information, or a site map.



LINKING PAGES

Now, you're going to make a new page with links to other sites – and link it to your homepage.

1. Open your template and save a new copy named 'links.html' in your website folder.

2. Give your new page a title by typing between the two <title> tags.

```

<title>Fox Hill Links</title>
    
```

3. You're going to add the banner to the top of your page again, but this time it's also going to be a link to your homepage. Type this after the first <body> tag.

```

<body>
  <div style="text-align: center; padding: 10px;">
    <img alt="Fox Hill Banner" style="width: 100%; height: auto; border: 1px solid black;"/>
    <a href="index.html" style="float: right; text-decoration: none; color: purple; font-weight: bold; font-size: 1.2em;">
      <img alt="Link icon" style="vertical-align: middle; height: 1em;"/>
    </a>
  </div>
    
```

The 'a' stands for 'anchor'.
This tag will become a link you can click on.
'href' is an attribute that tells the browser where the link is.
This adds a link.

4. Type in the following to add a second link.

```

  <p>Here are links to websites recommended by Fox Hill Community Space.</p>
  <a href="https://www.usborne.com" style="color: purple; text-decoration: none; font-weight: bold;">
    <img alt="Link icon" style="vertical-align: middle; height: 1em;"/>
    Click here to find out where Fox Hill Community Space gets the books for their library...</a>
    
```

This adds ordinary text.
This adds a link.
The text in black is what you'll see on the page.

TYPES OF LINKS

Web addresses are known as 'urls'. A link to another page on the same website is known as a **relative url**. Think of your website as a family – each page is a 'relative' of the other pages.

A link to a separate site is an **absolute url**. For these you need to add **http://** or **https://** before the address.

```

<ul class="menu">
  <li>
    <a href="videos.html">
    Videos
  </li>
  <li>
    <a href="links.html">
    What's on
  </li>
  <li>
    <a href="whatson.html">
    Links
  </li>
</ul>
    
```

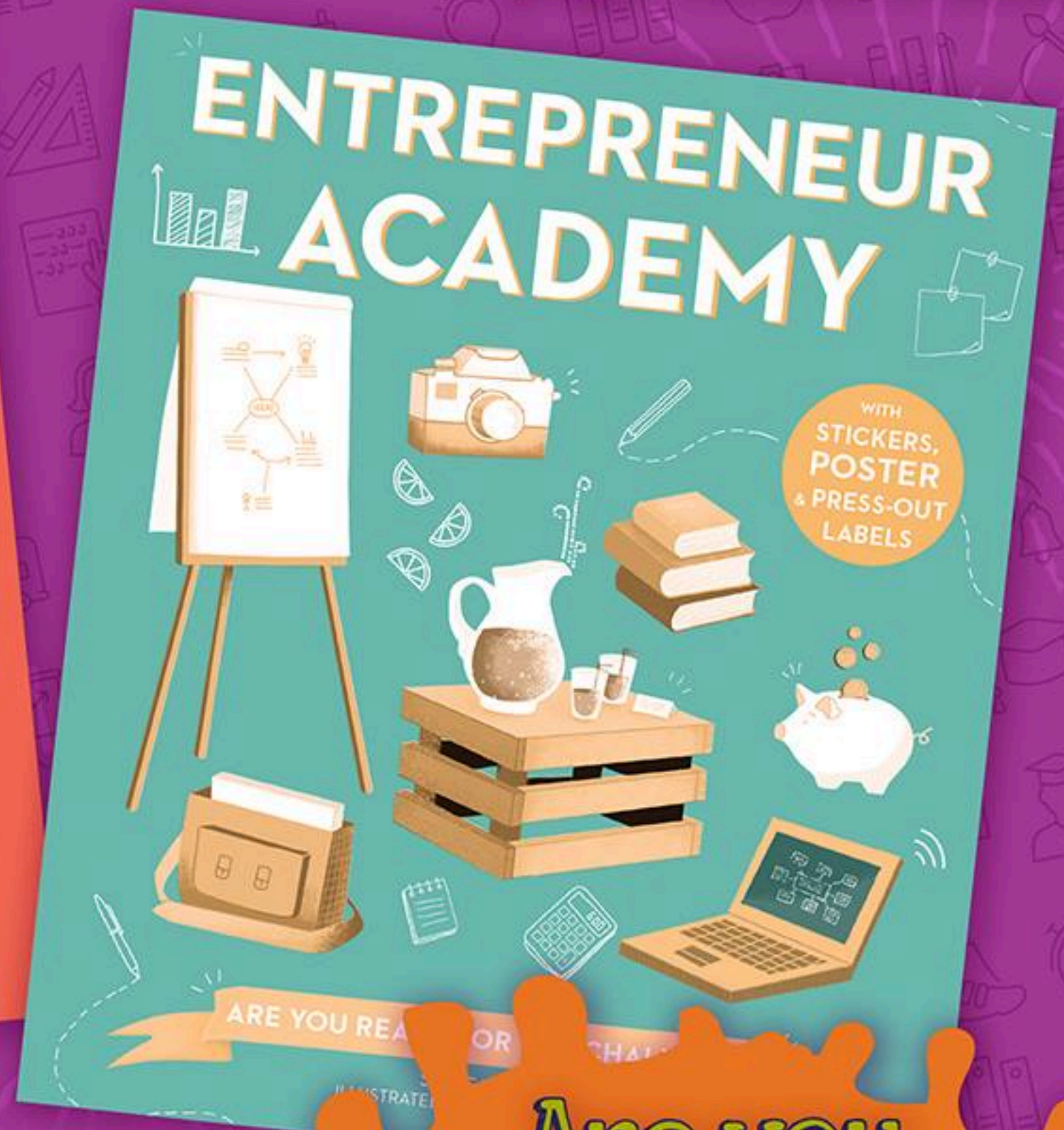
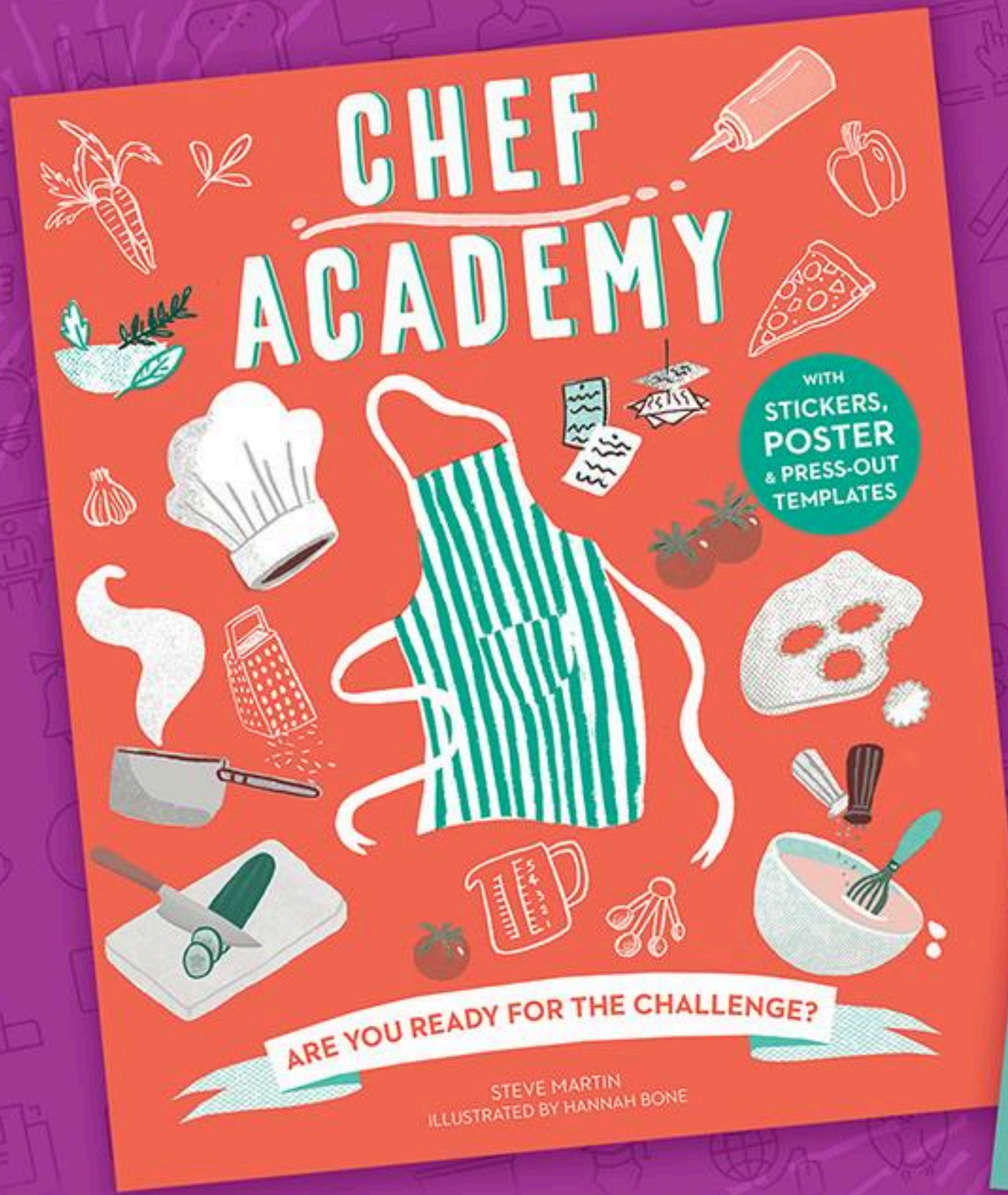
Visible part of page

Only the tip of each bar is visible until it slides inwards.

Design and build a real, working website from scratch using HTML, CSS, and Javascript. Includes simple step-by-step instructions written especially for beginners. Also includes extra help and downloads online.



USBORNE
BOOKS & MORE



Are you bursting with creative ideas? Discover what it takes to be a successful Leader! You'll learn how to test your ideas, stand out from the competition, and give back to the world!

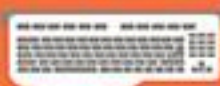
Are you ready for the challenge?



USBORNE
BOOKS & MORE

< CODER > ACADEMY

WITH
STICKERS,
POSTER
& PRESS-OUT
MODELS



ARE YOU READY FOR THE CHALLENGE?

LEARN TO CODE IN THE ACADEMY SERIES!

At the Coder Academy, you can take your first steps to becoming a coder. You'll learn how to create music, games, web pages and animations. You'll also find out how computers think, how to give them instructions, how to use Scratch, write HTML and lots more.



Unleash your CREATIVITY!

DEVELOP
a brand

Design a logo
RUN WILD

Pick a palette

Apply your brand

STYLE
your own
lettering

Usborne
DESIGN
Activity Book

MAKE
a movie poster

DESIGN
a board game

Initial ideas → Rough design → Final poster

PLAN
a webpage

Here are two posters for two very different concerts. **ADD** the word **MUSIC** in a typeface that works for each kind of concert.

Try out ideas here first. Then add the word **MUSIC** in the white space on each poster.

ORCHESTRAL CONCERT

Sophisticated
Calm
Swingy



ROCK BAND CONCERT

EYE-CATCHING
BOLD
HEAVY



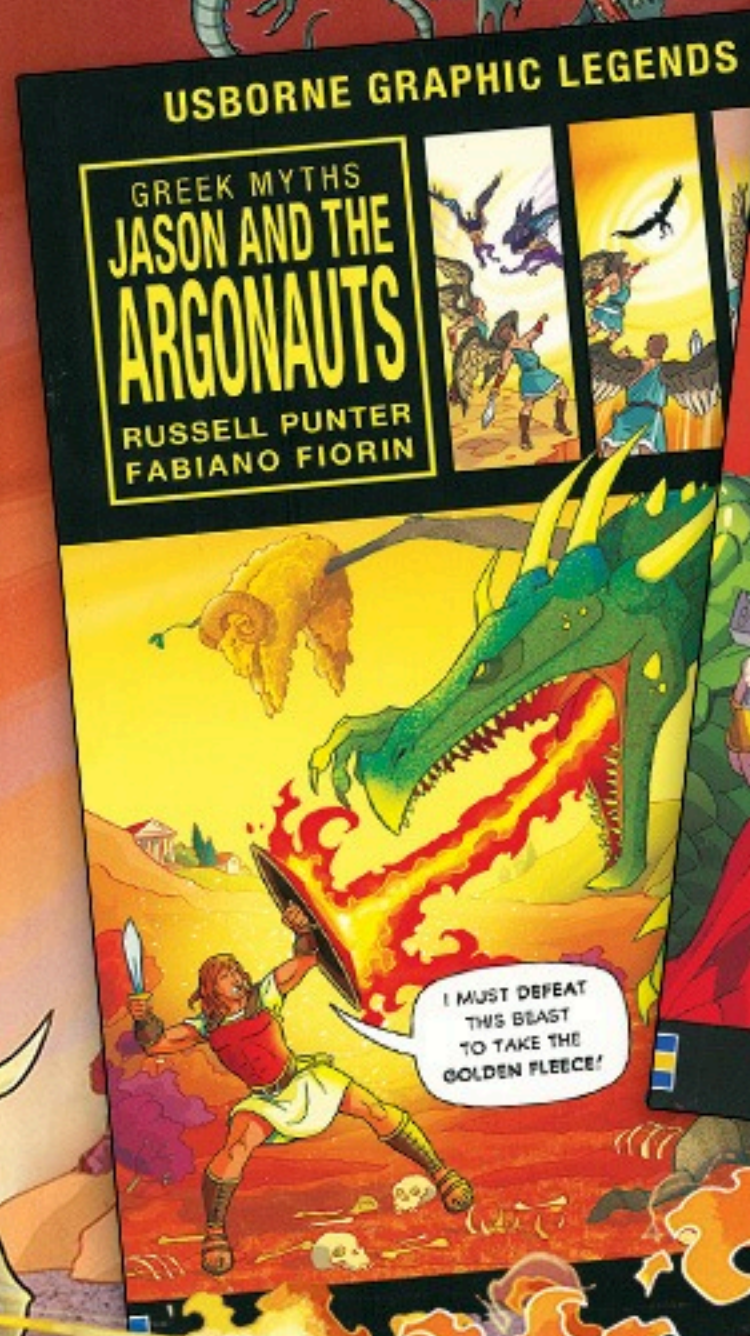
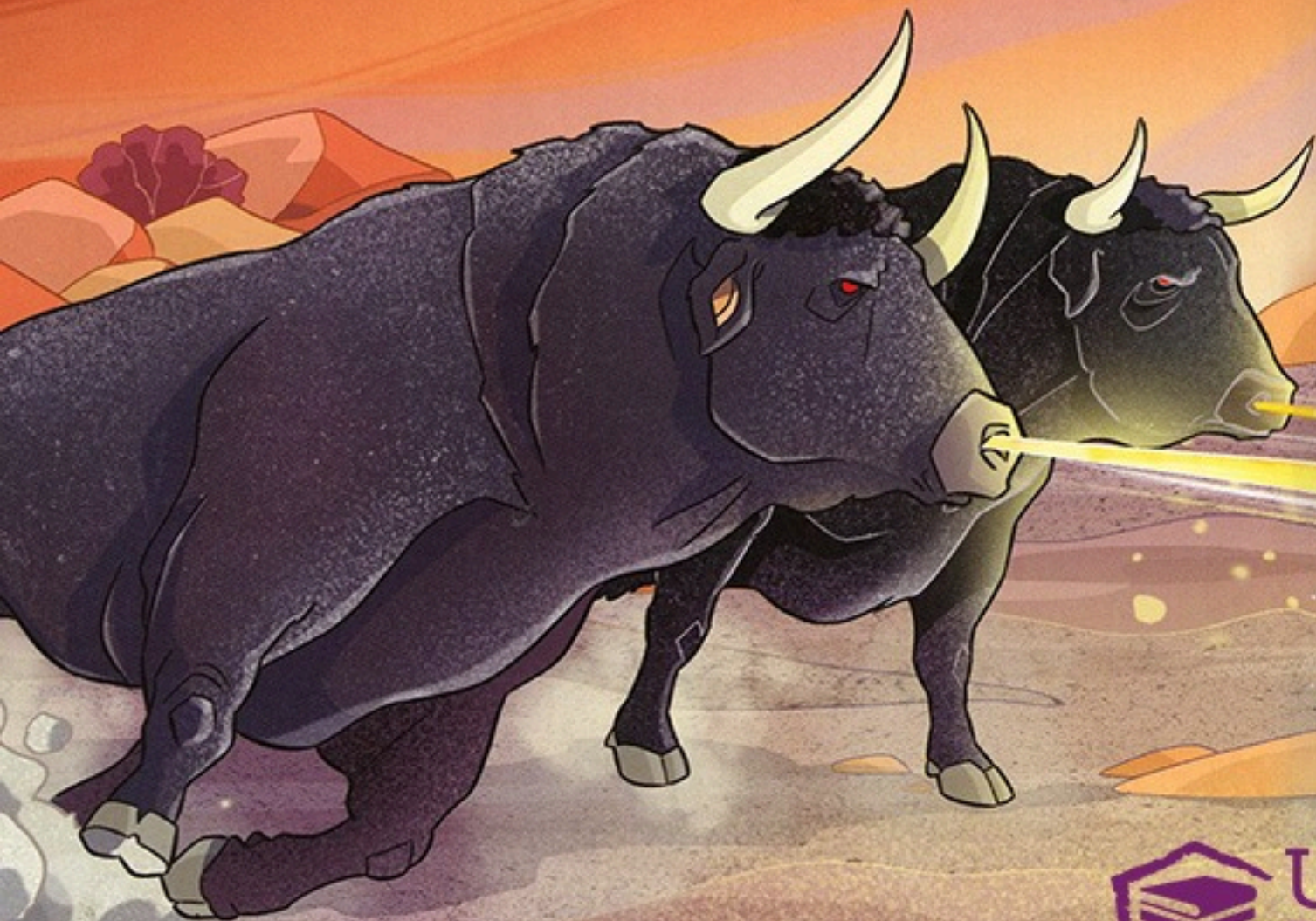
An entertaining activity book packed with fun design projects - from lettering and book covers, to costumes and gadgets. Full of helpful tips and space to imagine, draw and create.



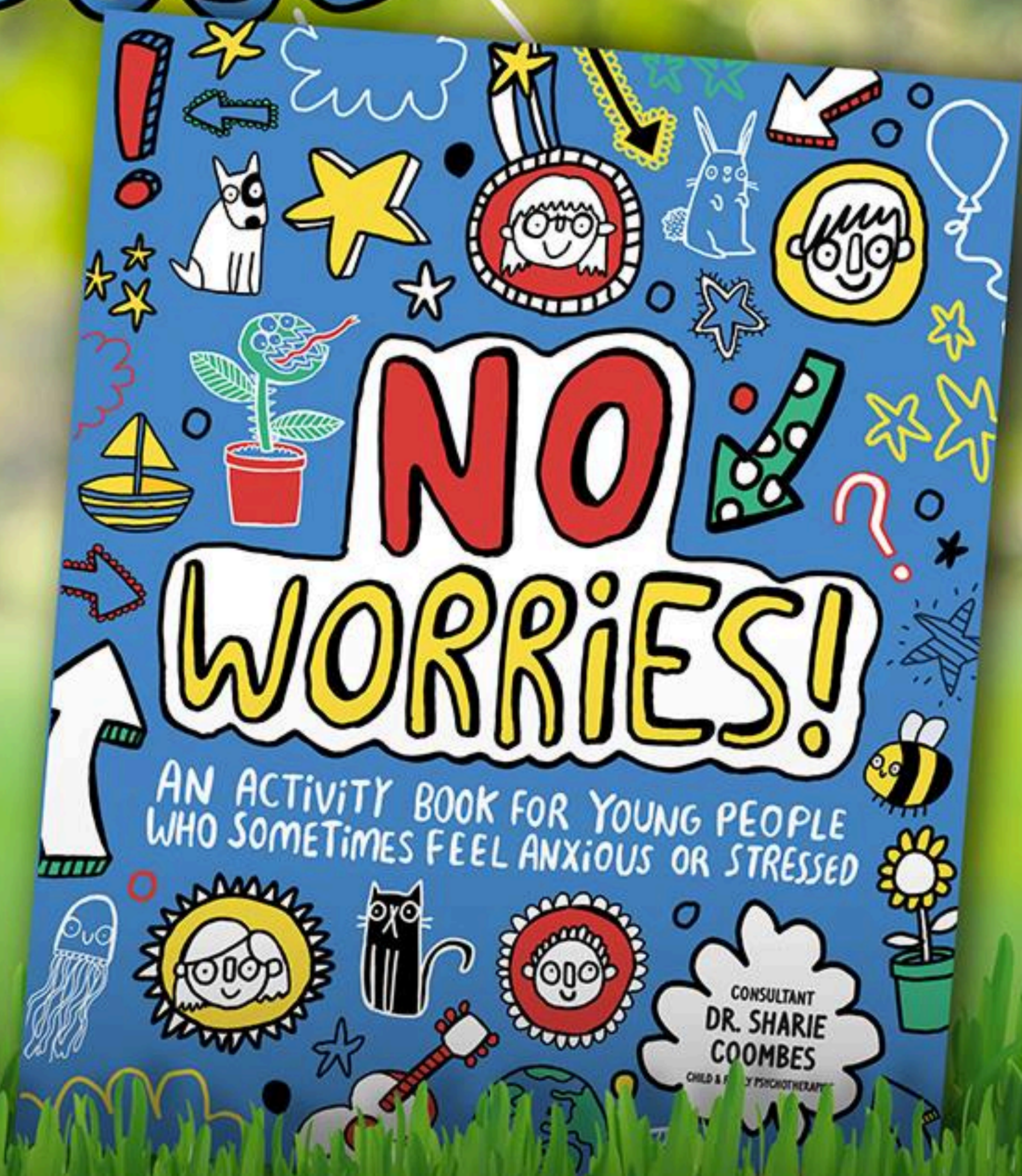
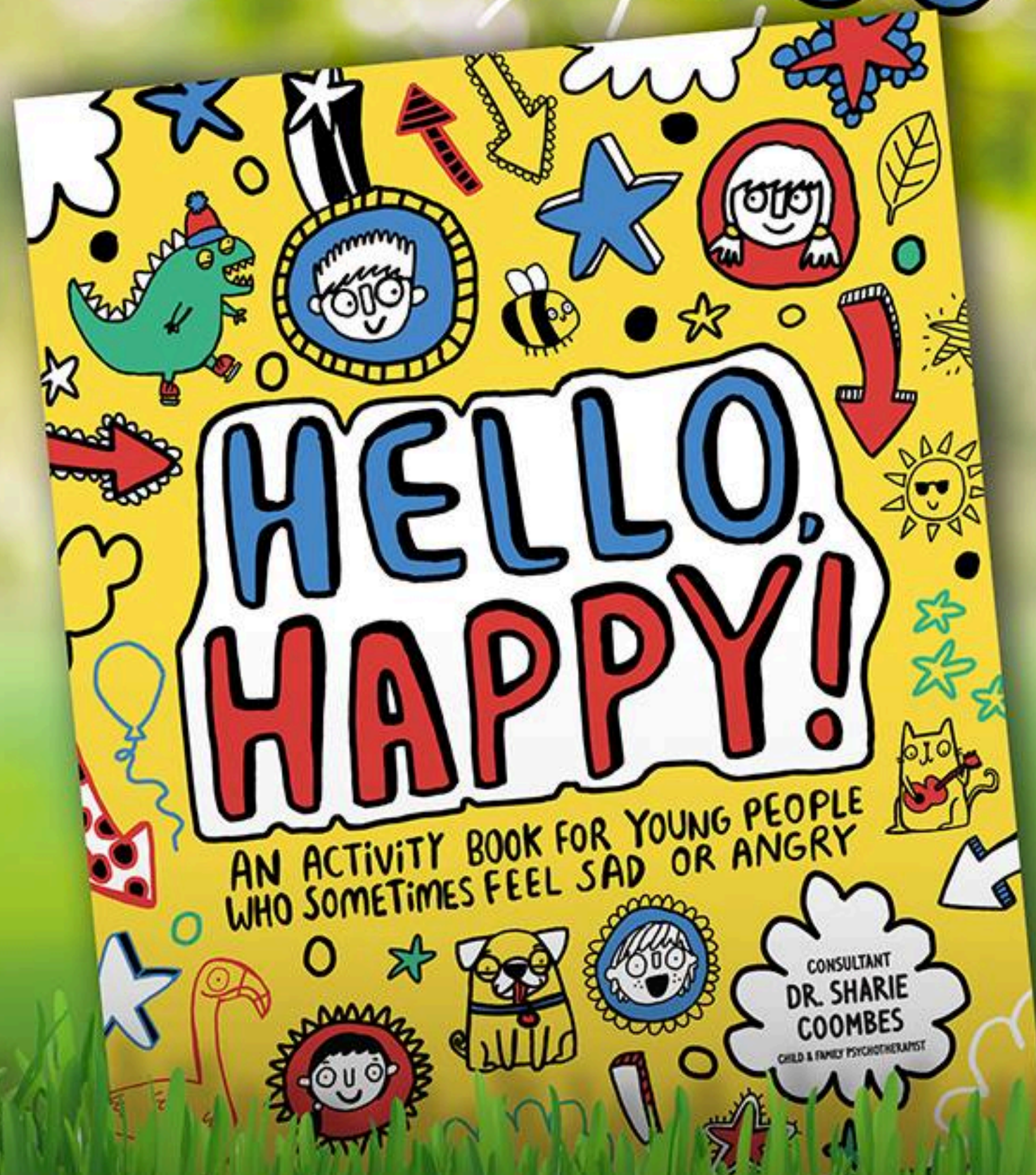


LEGENDARY ADVENTURES!

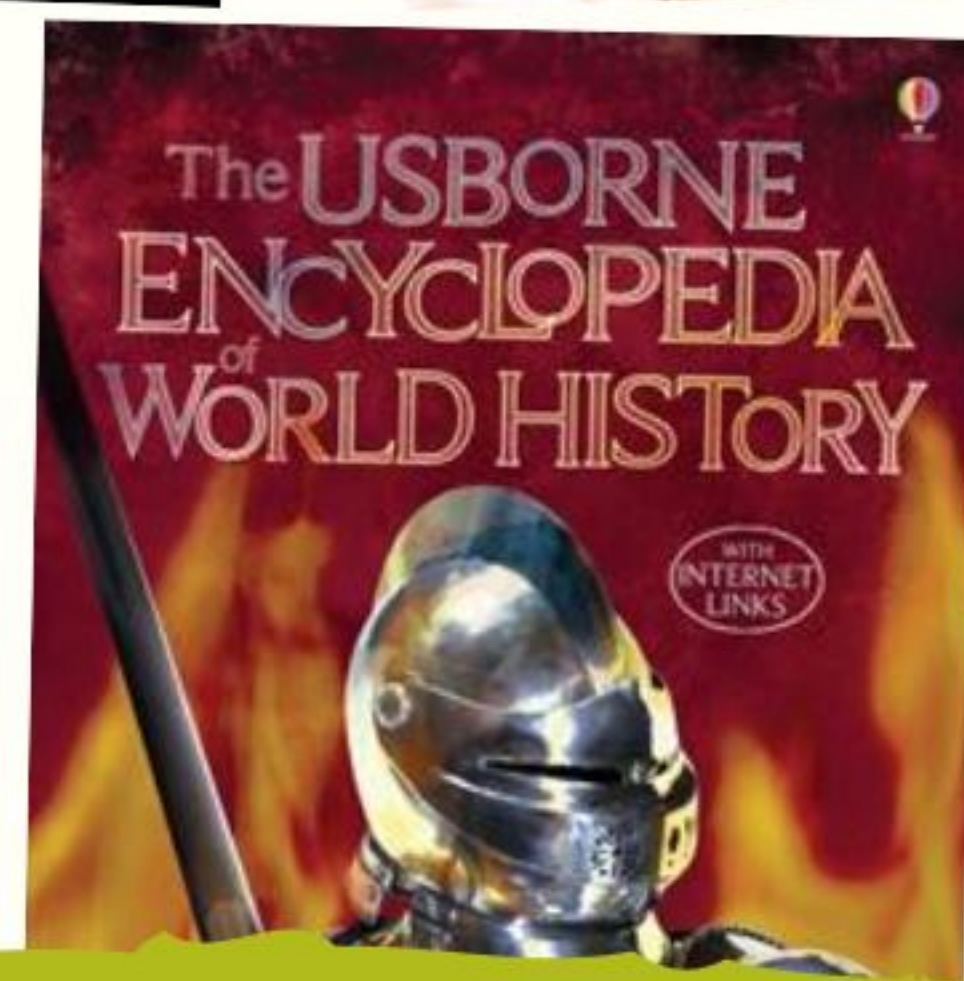
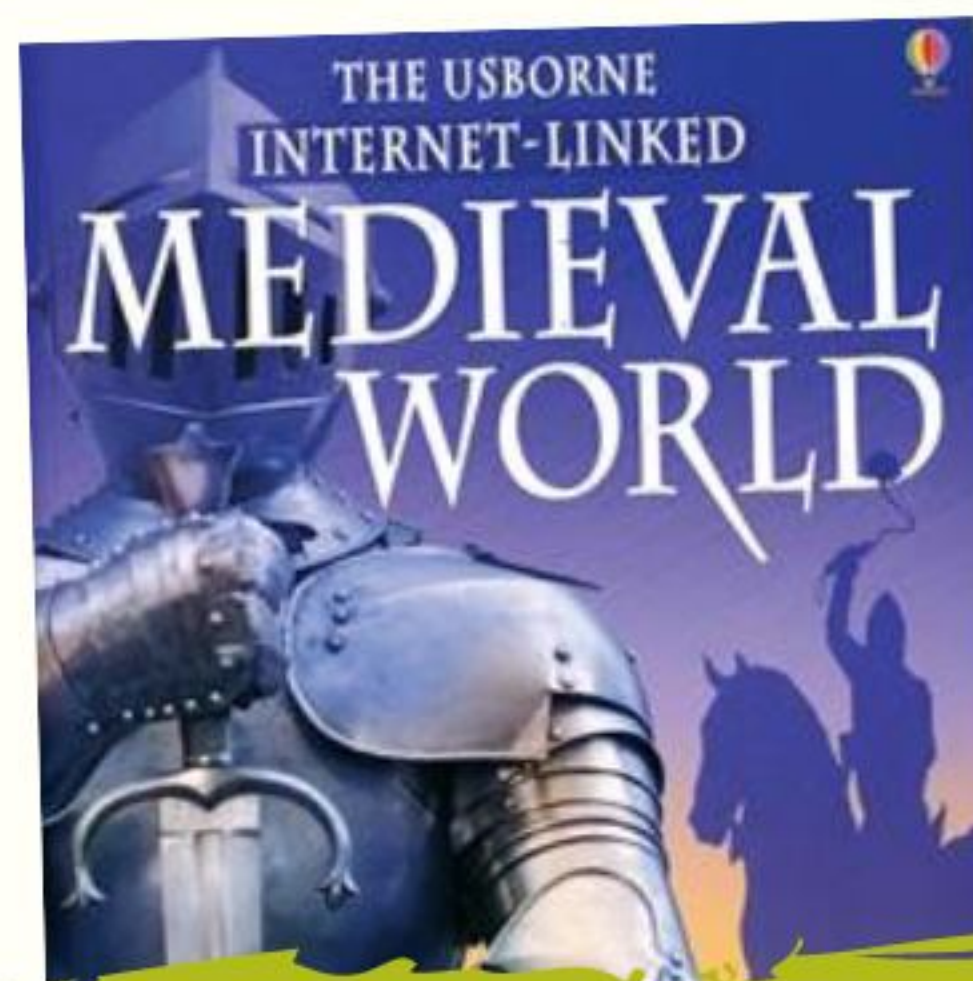
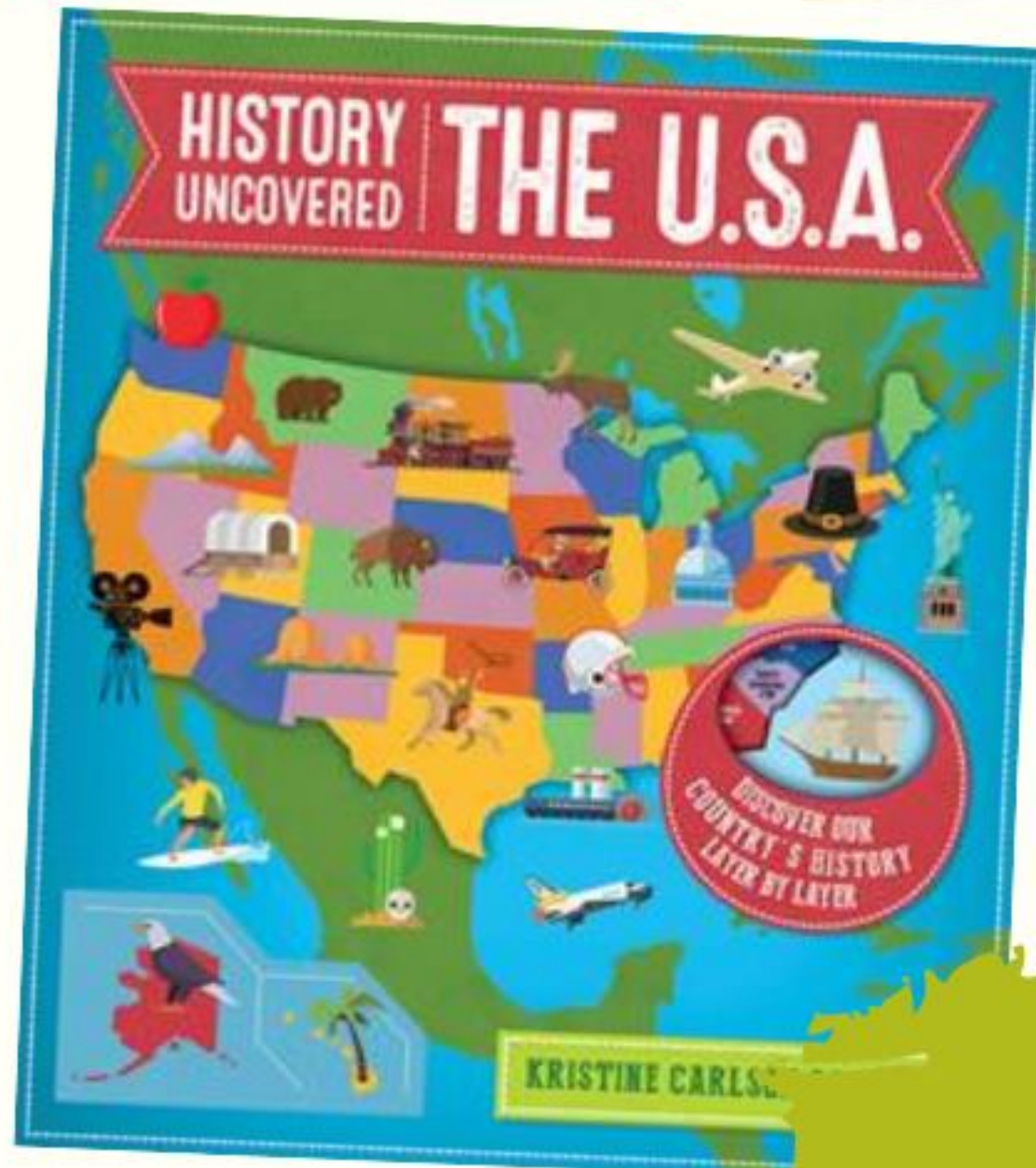
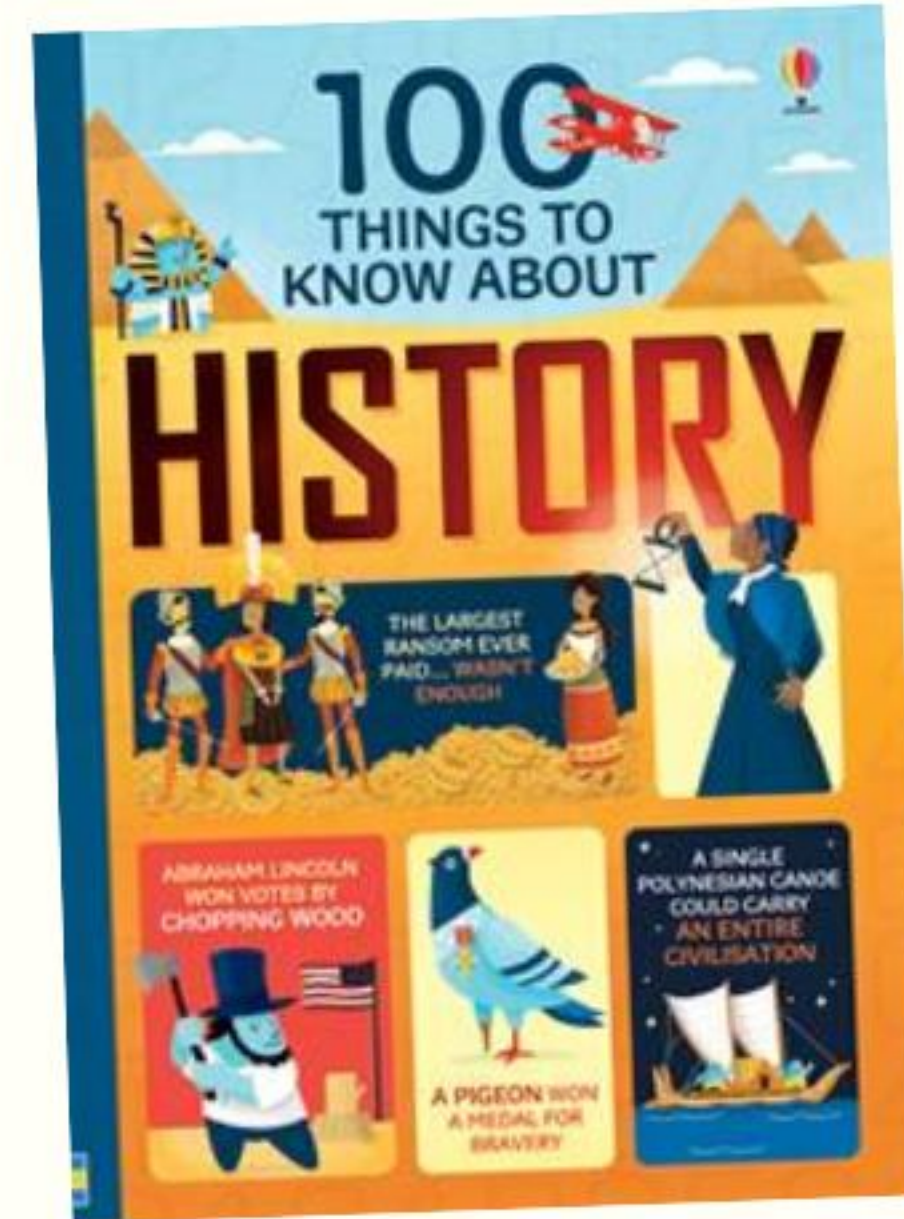
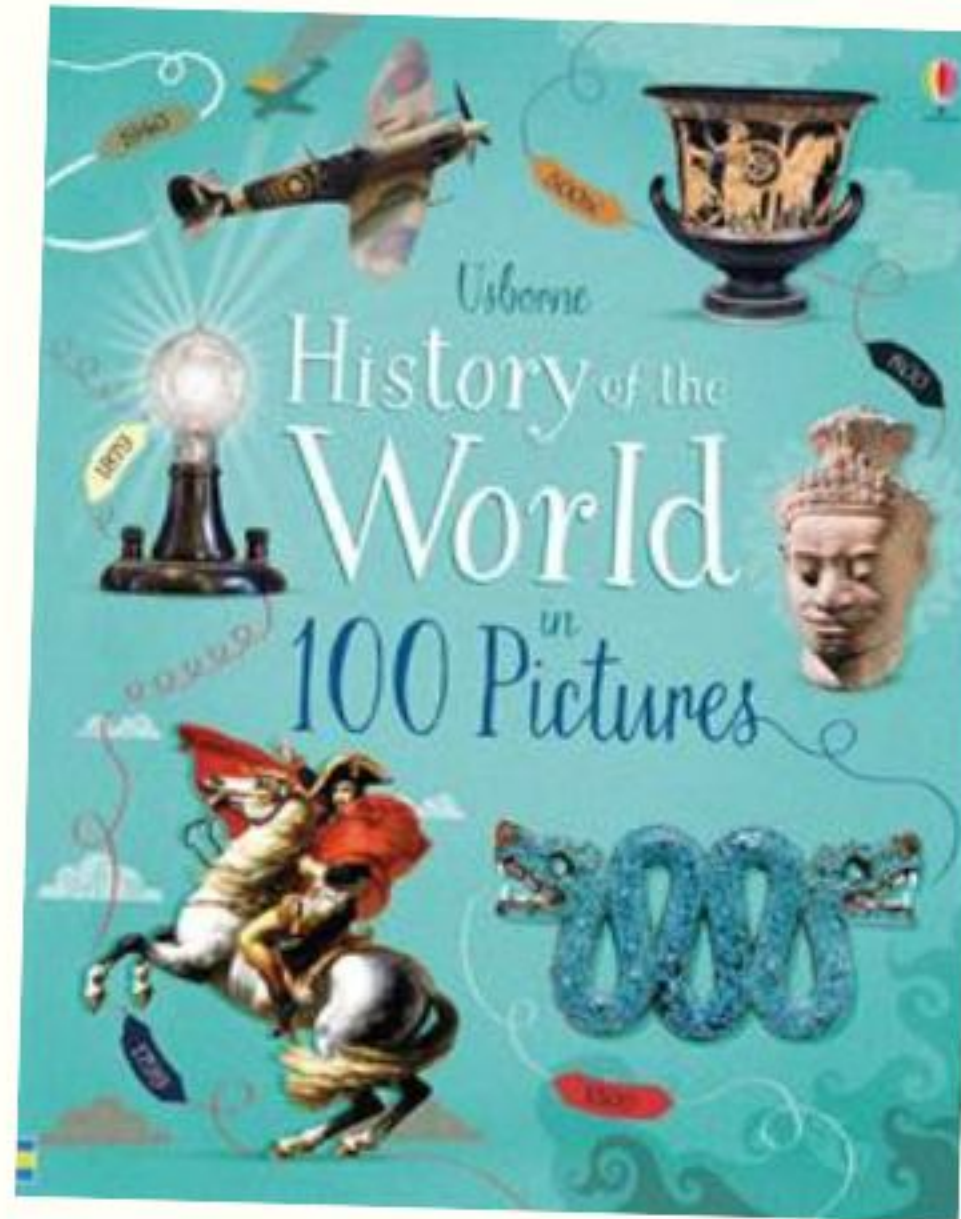
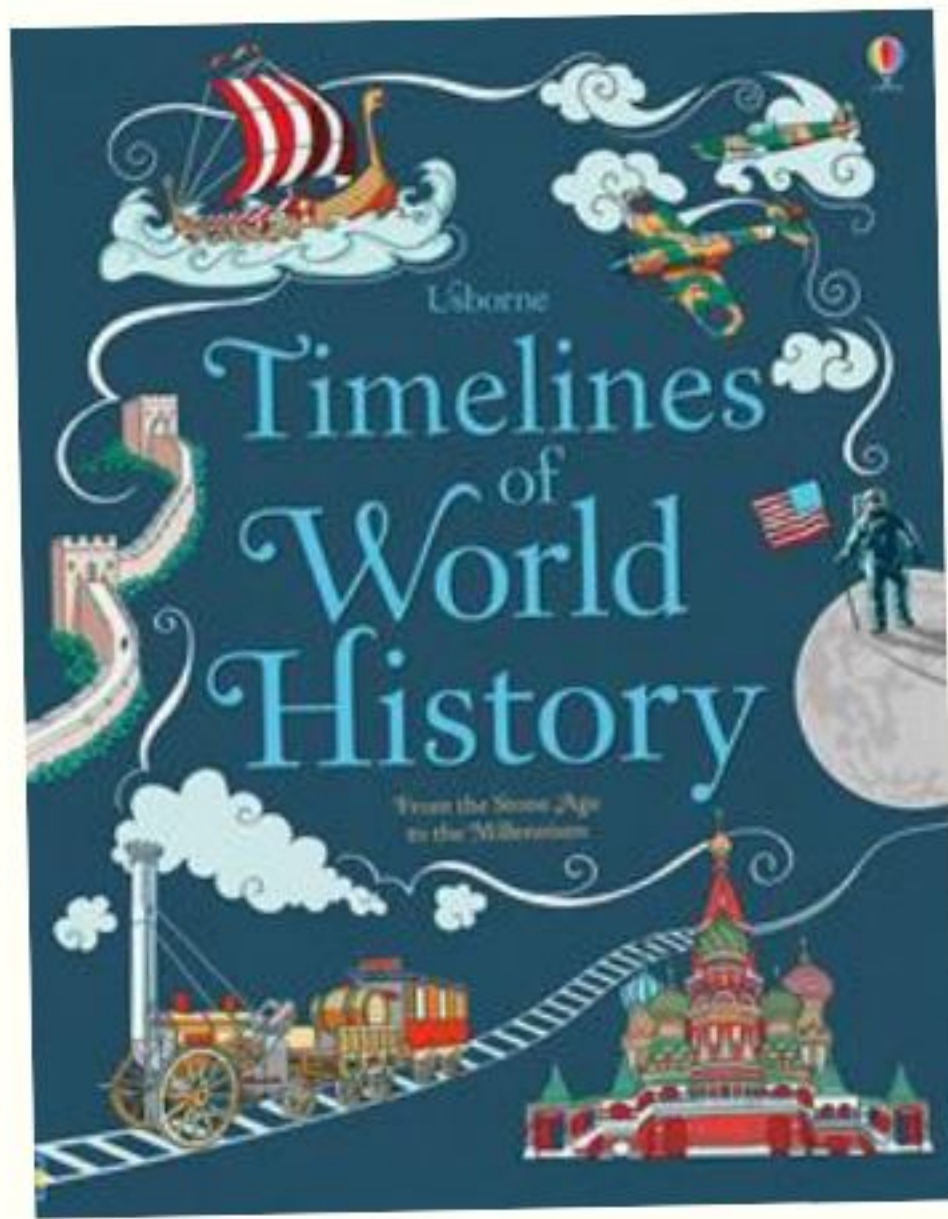
These entertaining, action-packed graphic stories are a great way to initiate reluctant readers, plunging them into an imaginary universe to be carried away by the story.



★ Great ★ ACTIVITY TITLES!



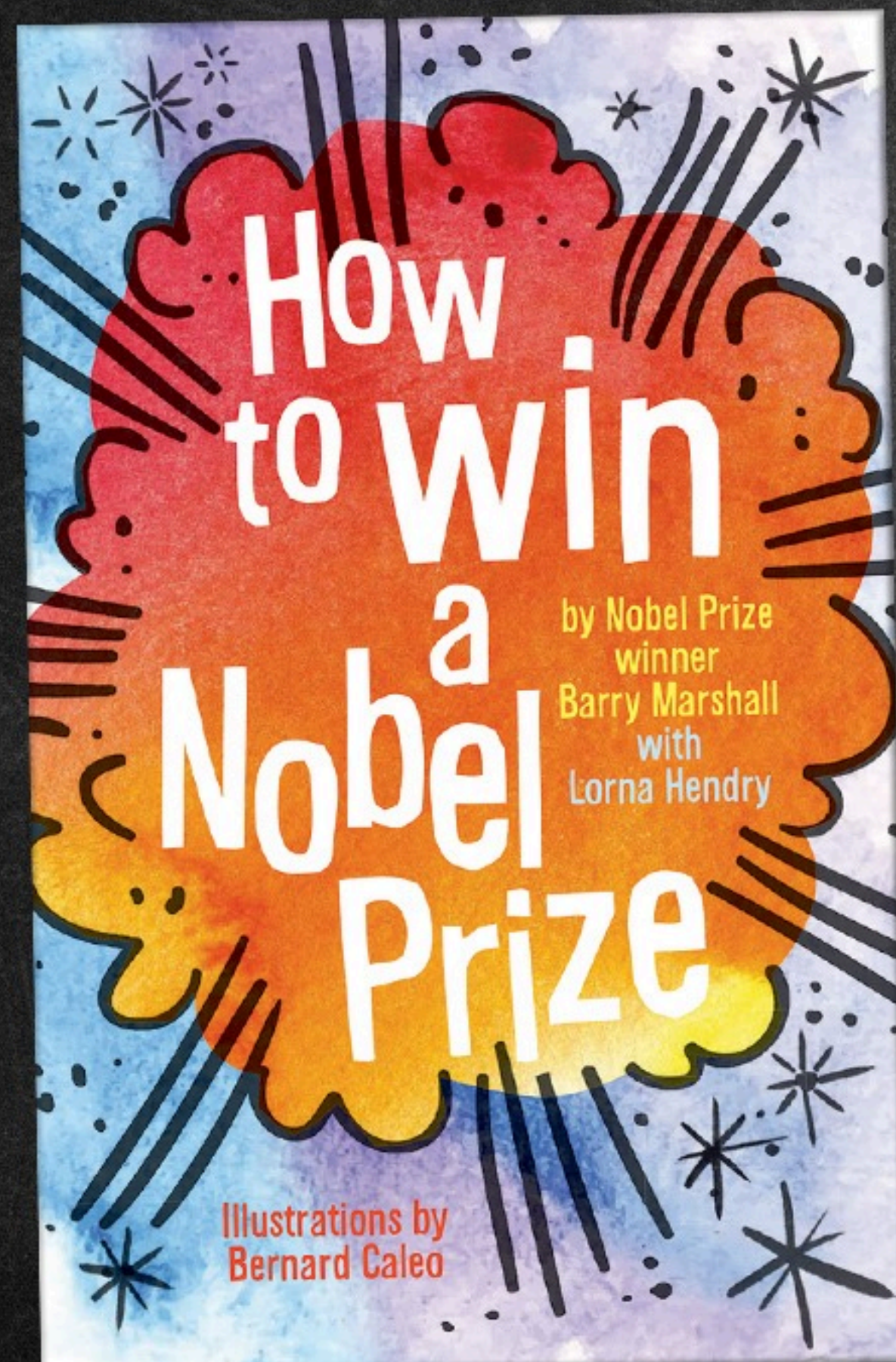
These thoughtful activity books take an interactive and self-care approach for children ages 8 years+ to color and doodle their way to happiness, calm, and confidence. These encouraging and simple exercises tackle anxiety, sadness and stress; children will enjoy using their creativity to combat negative feelings, work out why they feel worried and how to put stress back in its place through writing, coloring, doodling and drawing.



HISTORY HELPERS



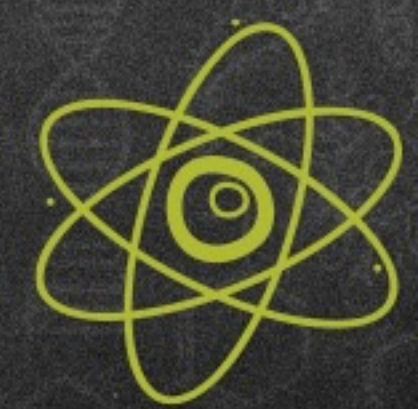
How a Nobel to win Prize



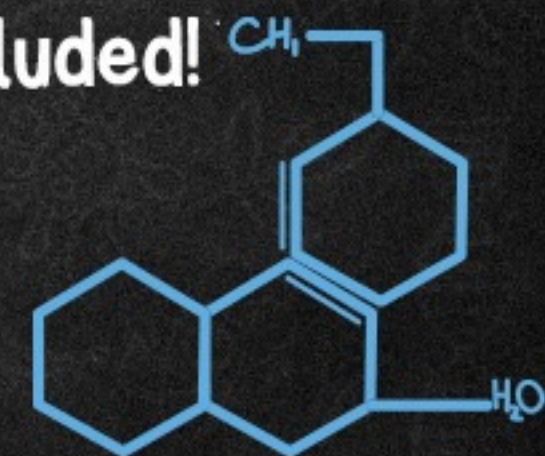
Illustrations by
Bernard Caleo

When Mary stumbles on a secret meeting of Nobel Prize winners, Dr. Barry Marshall agrees to travel with her through time to learn the secrets behind some of the most fascinating and important scientific discoveries.

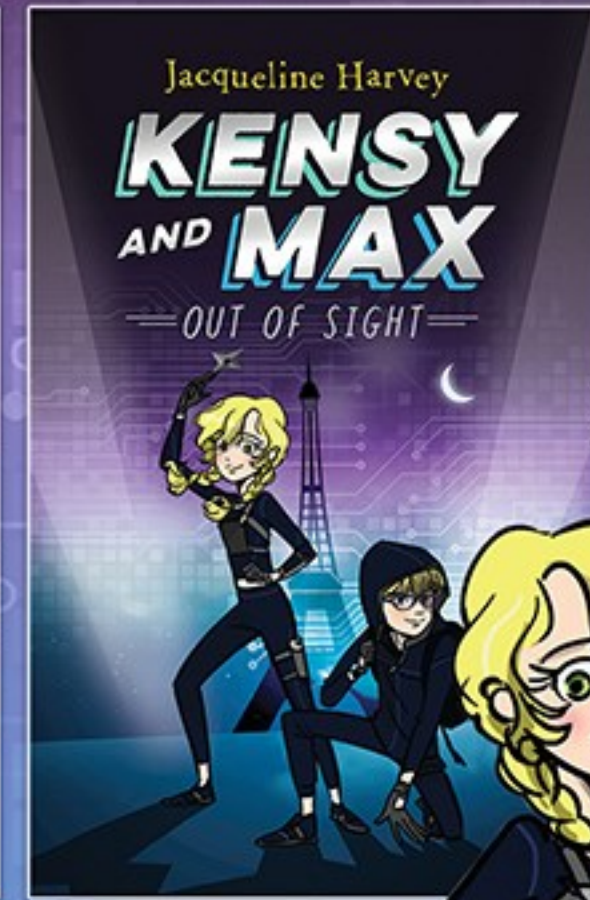
They talk time and space with Albert Einstein, radiation with Marie Curie, DNA with Crick, Watson, and Wilkins – and more!
Fun science experiments included!



 **USBORNE**
BOOKS & MORE



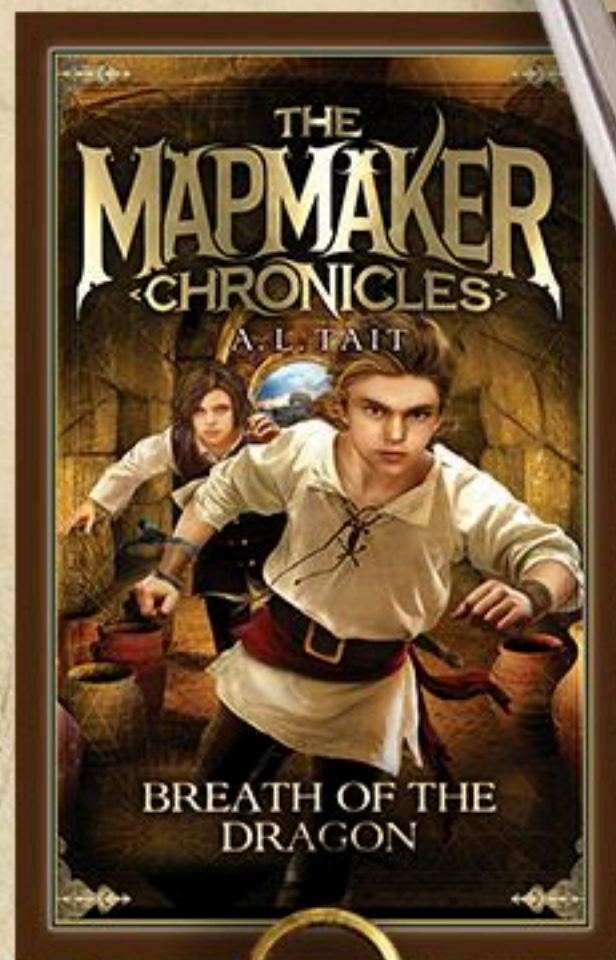
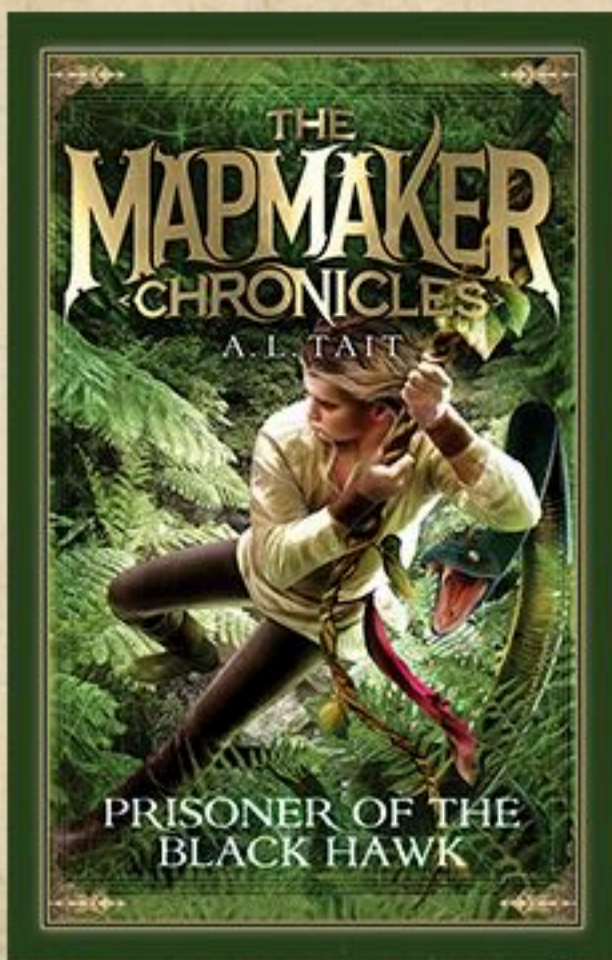
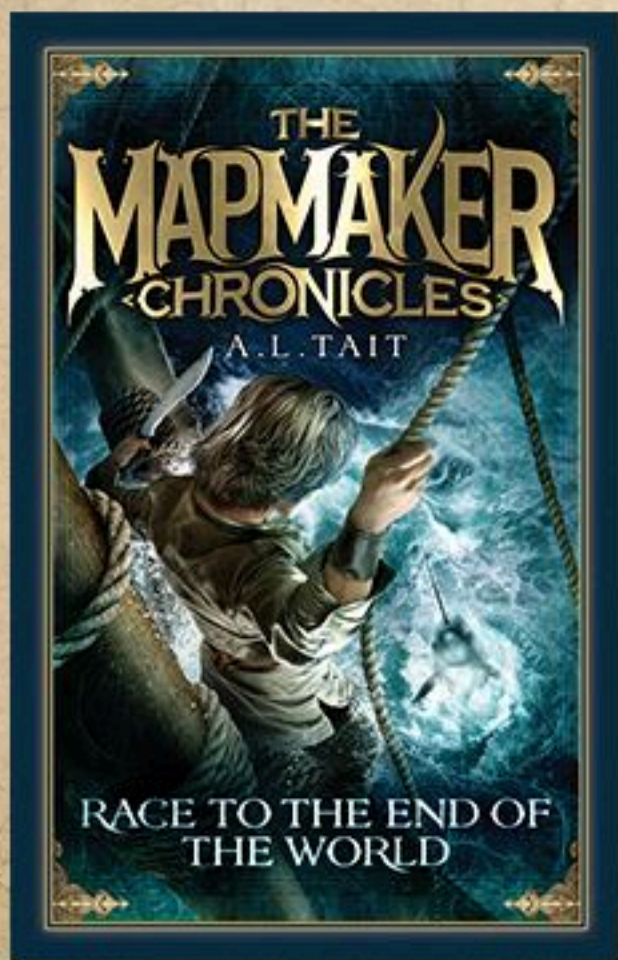

I SPY A GREAT SERIES!



Kensy and Max Grey's lives are turned upside down when they are whisked off to London. As the situation unfolds, the twins discover mysteries that don't add up, and they are determined to uncover the truth!

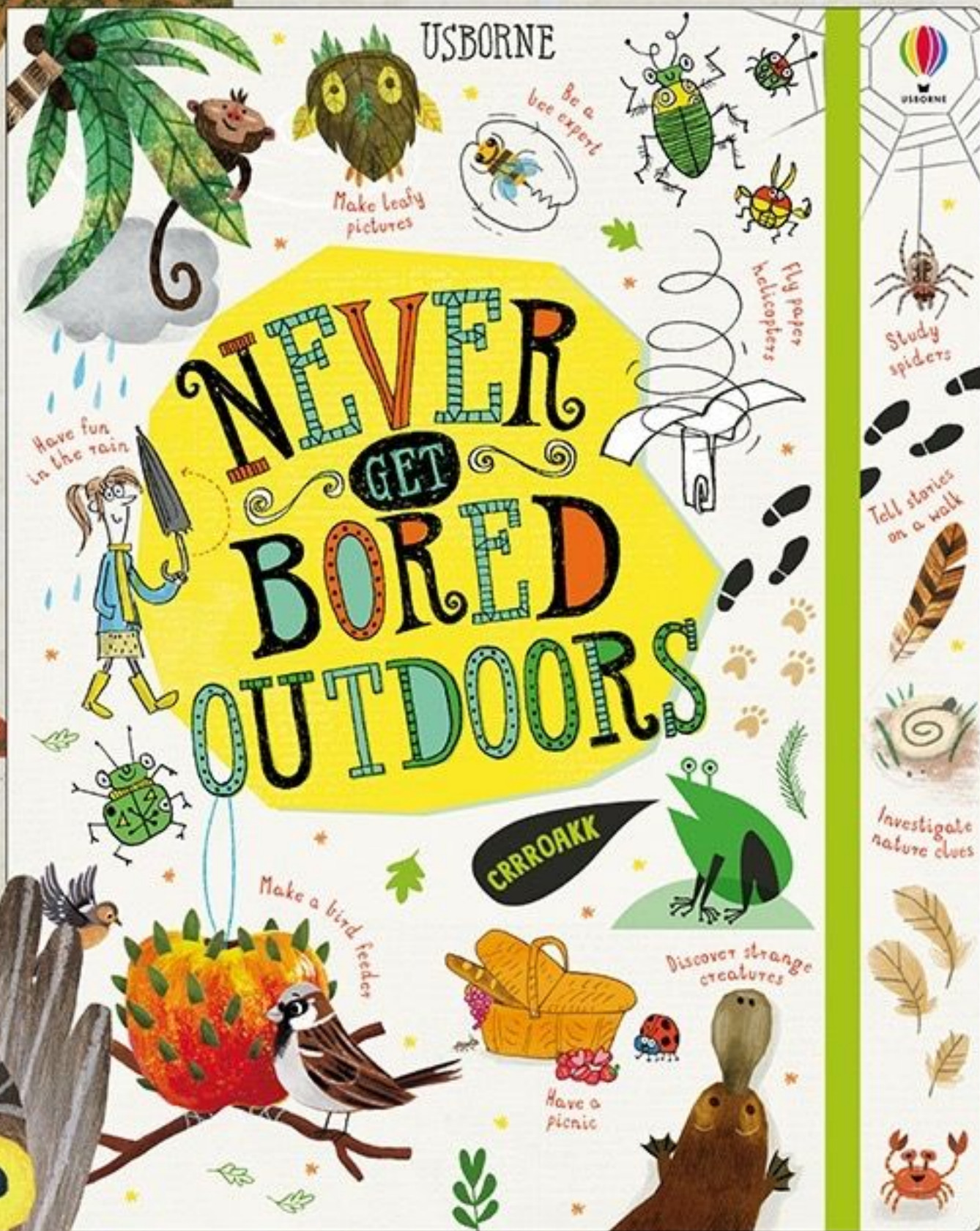


Discovery and danger
lie just off the edge of the map!



The Mapmaker Chronicles is an exciting
adventure series about a race to map the
world ... and a boy who discovers more
than he ever imagined!

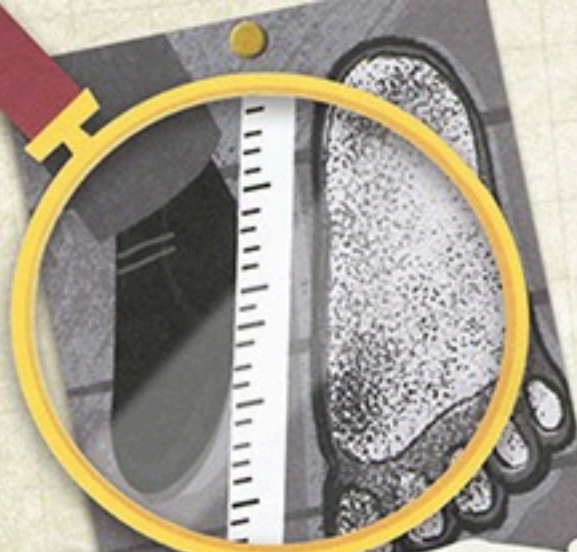




Unearth an amazing hoard of fun things to do outdoors throughout summer - and the other seasons, too!

Whether you're in a garden or at the park, up a hill or by the sea, walking through a forest or down a city street, there'll never be a dull moment outdoors with this book!

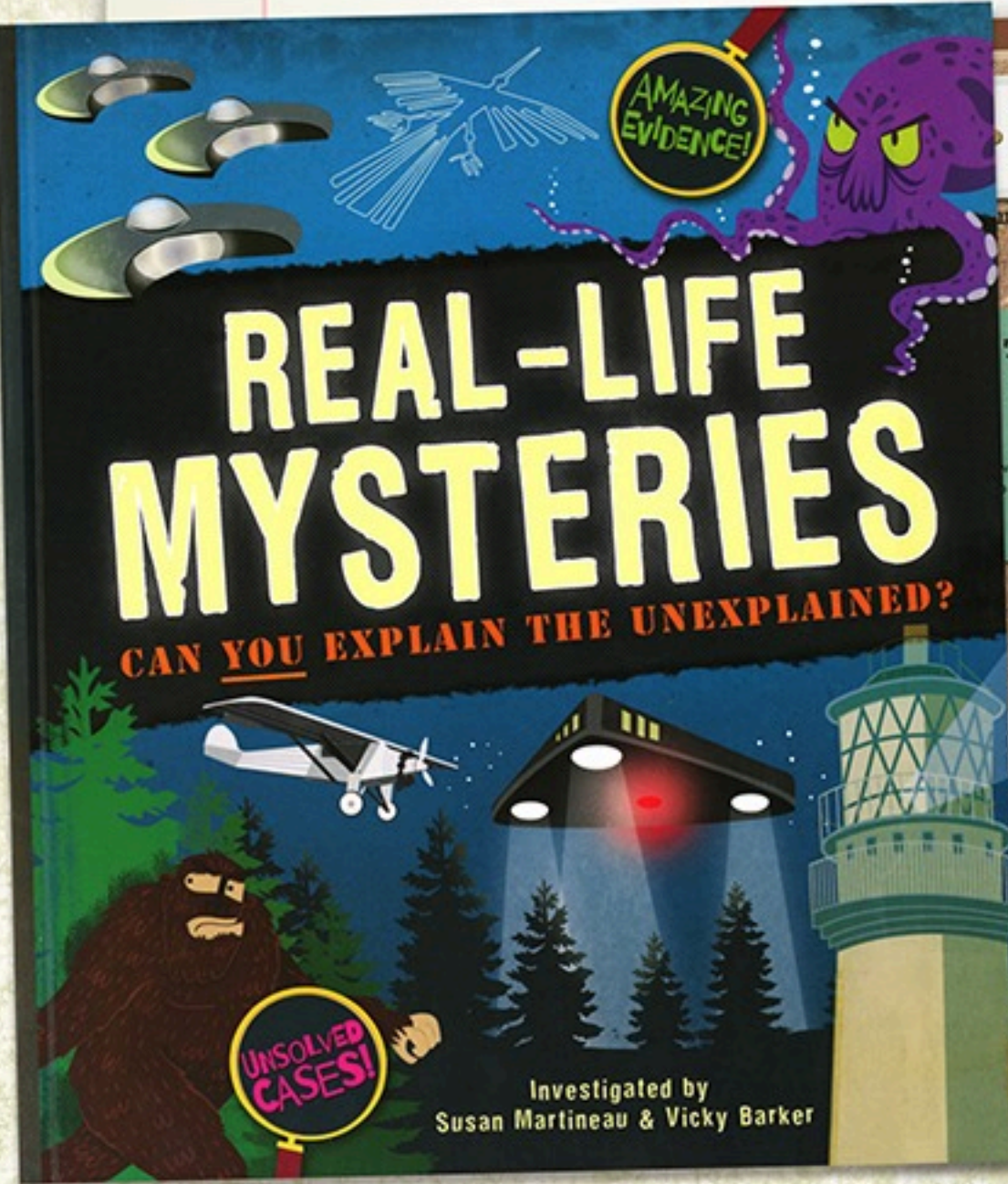
 **USBORNE**
BOOKS & MORE



S SERIOUSLY SPOOKY ☠️
JUST BECAUSE SOMETHING IS WRITTEN IN A BOOK DOES NOT MEAN IT IS TRUE.

FOR YOUR EYES ONLY

Have you ever wondered what exactly does go bump in the night? From haunted objects to unexplained disappearances, read the amazing evidence of these mysterious, real-life cases and make up your own mind. Things are not always what they seem – until they are, and then you might wish you had never asked!



CASE FILE - Curses
The evidence so far...

Turn back to read the stories behind the case file...

The Great Eastern

The Victims
Several workmen.
Brunel himself.
Two workmen vanish and bodies found until ship is broken up.

The Ship
The biggest steamship of its time.
Nearly 700 feet long and 83 feet wide.
Very expensive to build. The company that built it went bust.



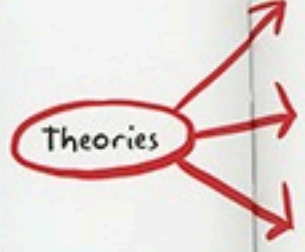
The Hope Diamond

The Jewel
A blue Indian diamond about the size of a walnut.
It has had about 11 owners.
Under certain lights it shines with a blood-red glow.

The Victims

- gone mad
- died
- been murdered
- committed murder
- had accidents
- Some owners have been left unharmed.

Ultraviolet light causes this type of diamond to glow red.

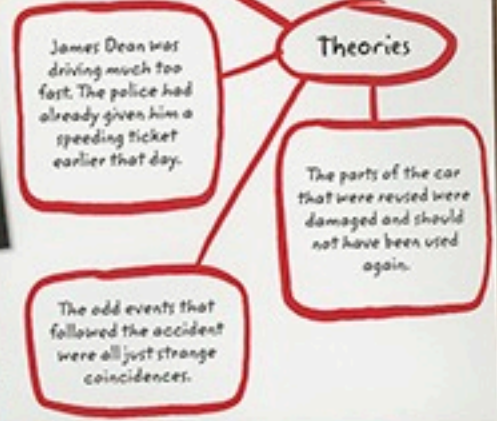


James Dean's Car

The Car
A silver Porsche 550 Spyder.
The car was designed for racing.



The Victims
James Dean died in the crash.
His passenger survived, but died in another crash years later.

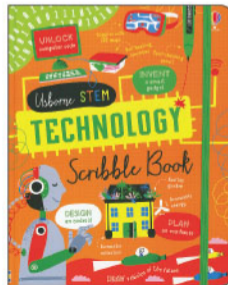
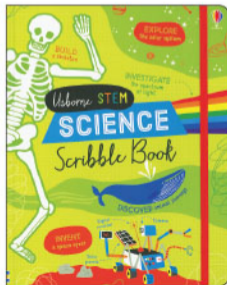
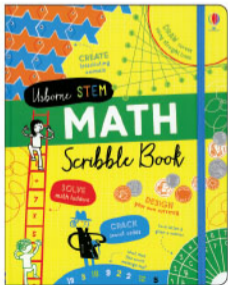
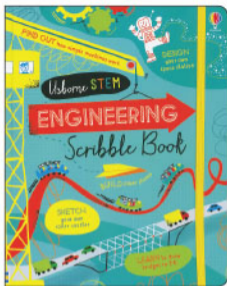
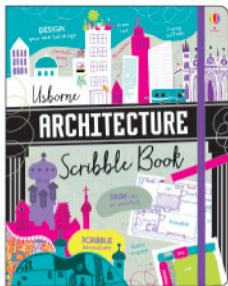


Self-Fulfilling Prophecy

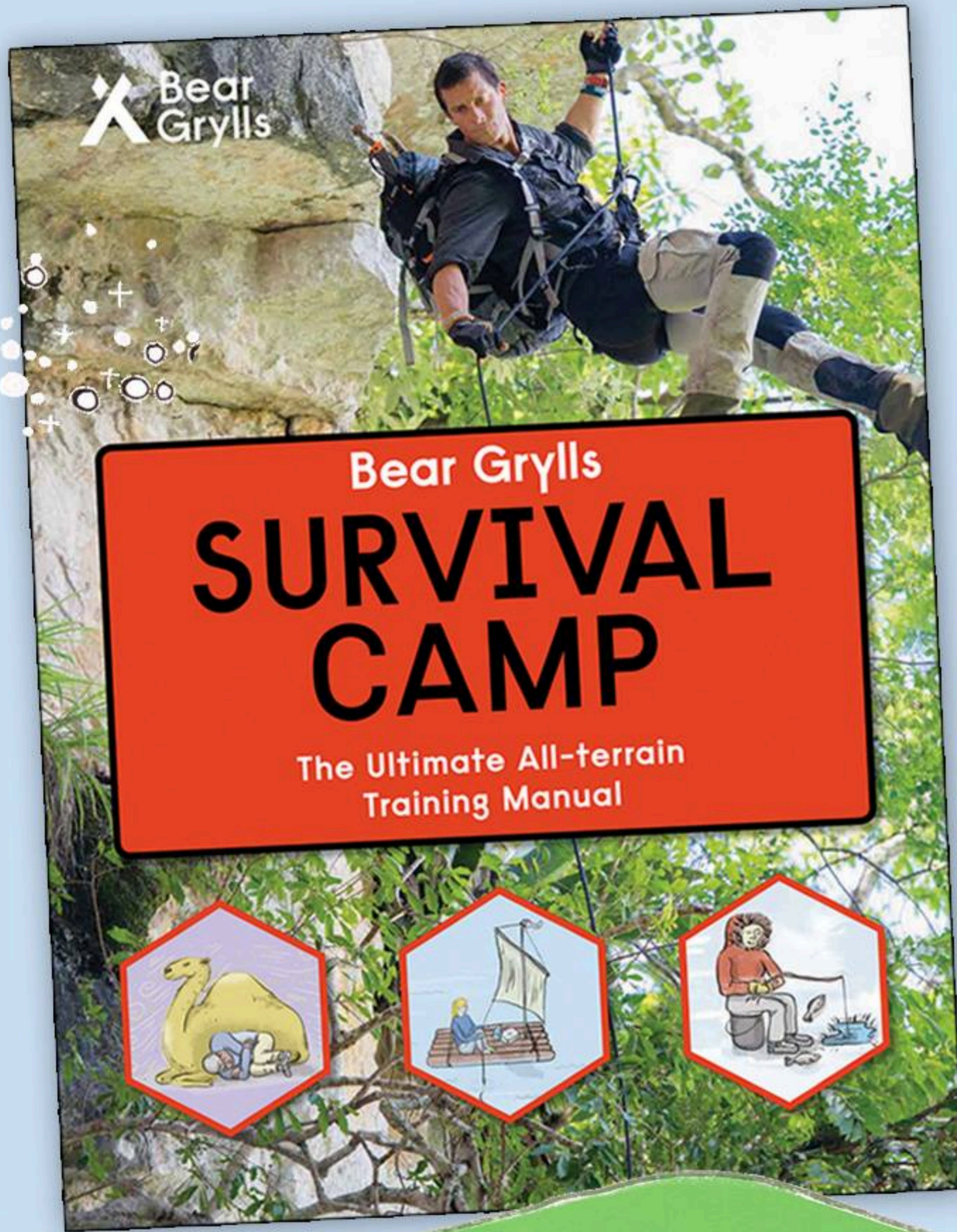
This is an interesting theory that says if we think something is going to happen then we might behave in such a way that it actually does happen.



CURSES



It's a wonderful world out there just waiting to be discovered, but are you ready to be an explorer?



Do you know how to cope with searing heat and intense cold? Can you find food and water in the wild? Could you avoid deadly diseases and fight back against man-eating beasts?

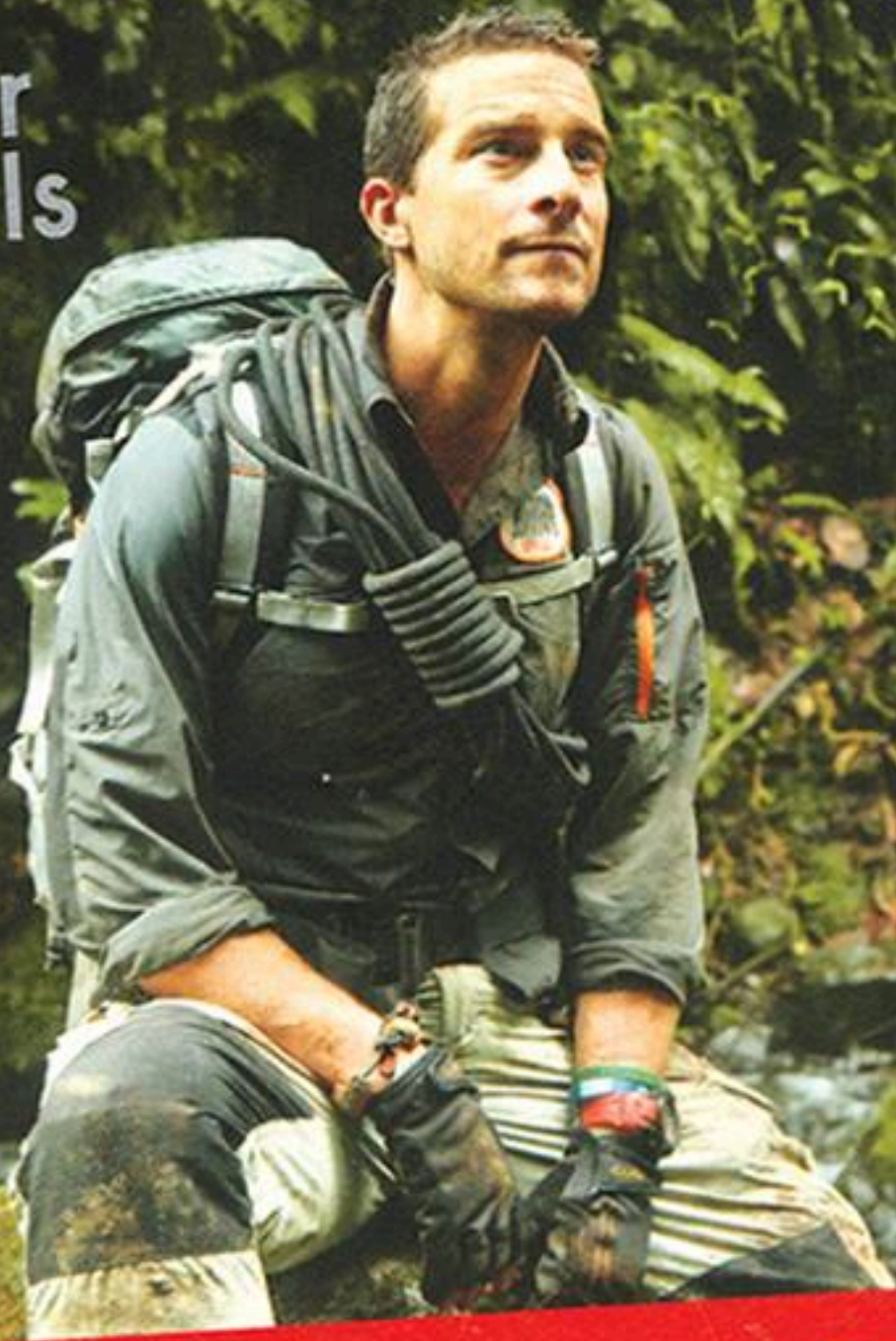
Let Bear Grylls teach you everything you need to know to venture through all of Earth's terrains, as well as through the air, over the seas, and under the waves in Bear Grylls Survival Camp.



USBORNE
BOOKS & MORE

EMBARK ON AN EXCITING ADVENTURE IN THE GREAT OUTDOORS WITH BEAR GRYLLS!

Bear Grylls



SURVIVAL SKILLS HANDBOOK

VOLUME 1

CAMPING • MAPS & NAVIGATION
KNOTS • DANGERS & EMERGENCIES

FIRE MAKING

Humans have been making and cooking on campfires for a few hundred thousand years. Making fire is still an important skill to learn so that you can keep warm and cook when camping.

Fire triangle

There are three elements that must be present for a fire to exist: oxygen, fuel, and heat. You'll need them in the right combination to get your fire started. Removing one or more of these elements will put out the fire.



Tinder

Tinder is a fine flammable material that easily catches a spark.



Bark
Look for dry inner bark from dead logs.



Fungus
Inner flesh from wet fungus is flammable.



Moss
Dead, dry moss makes an excellent fire starter.



Cotton ball and petroleum jelly
A highly flammable mix.

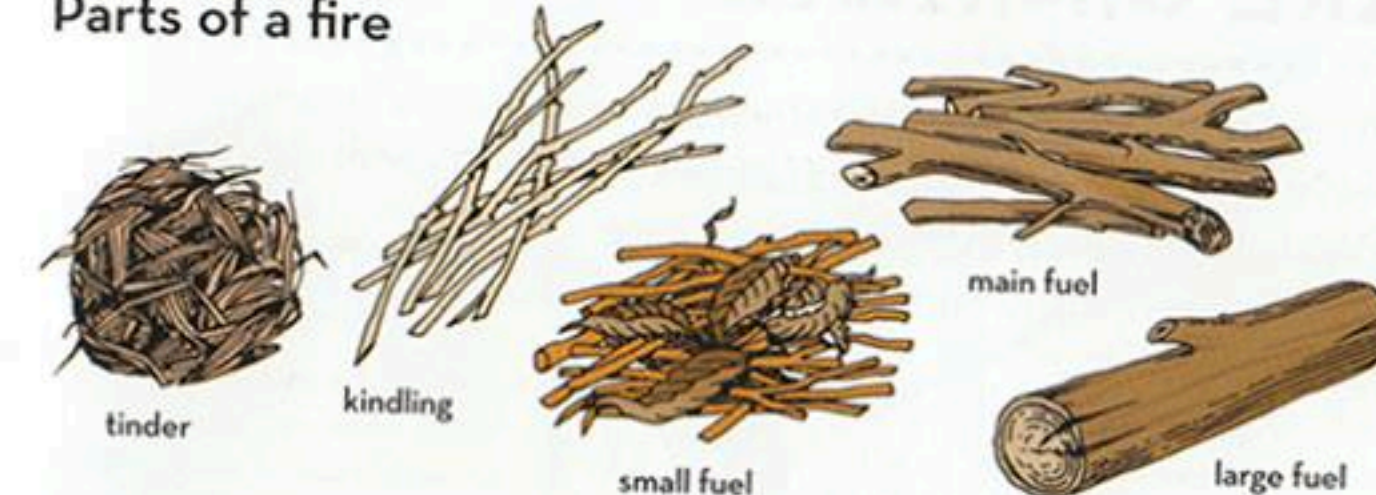


Grass
Break down stalks of dry grass into fine fibers.



Leaves
Dry dead leaves are often easy to find.

Parts of a fire



Build it up

A good fire is built up gradually. Start with tinder, then once the tinder has begun to burn, add kindling—dry twigs and sticks no thicker than your little finger. As coals are created, slowly add larger pieces of fuel.

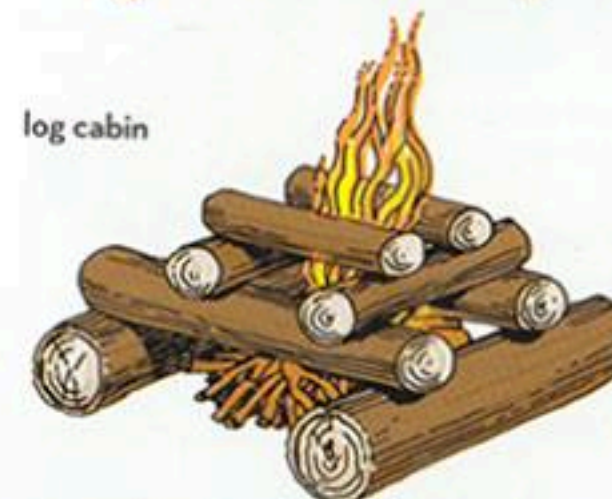
Starting structures



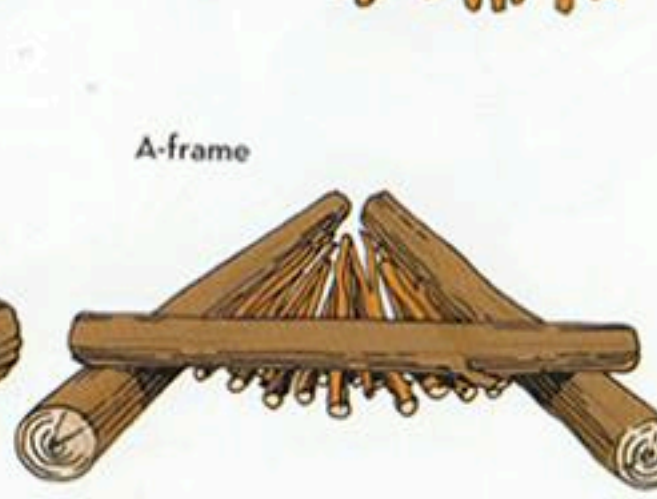
teepee



lean-to



log cabin



A-frame

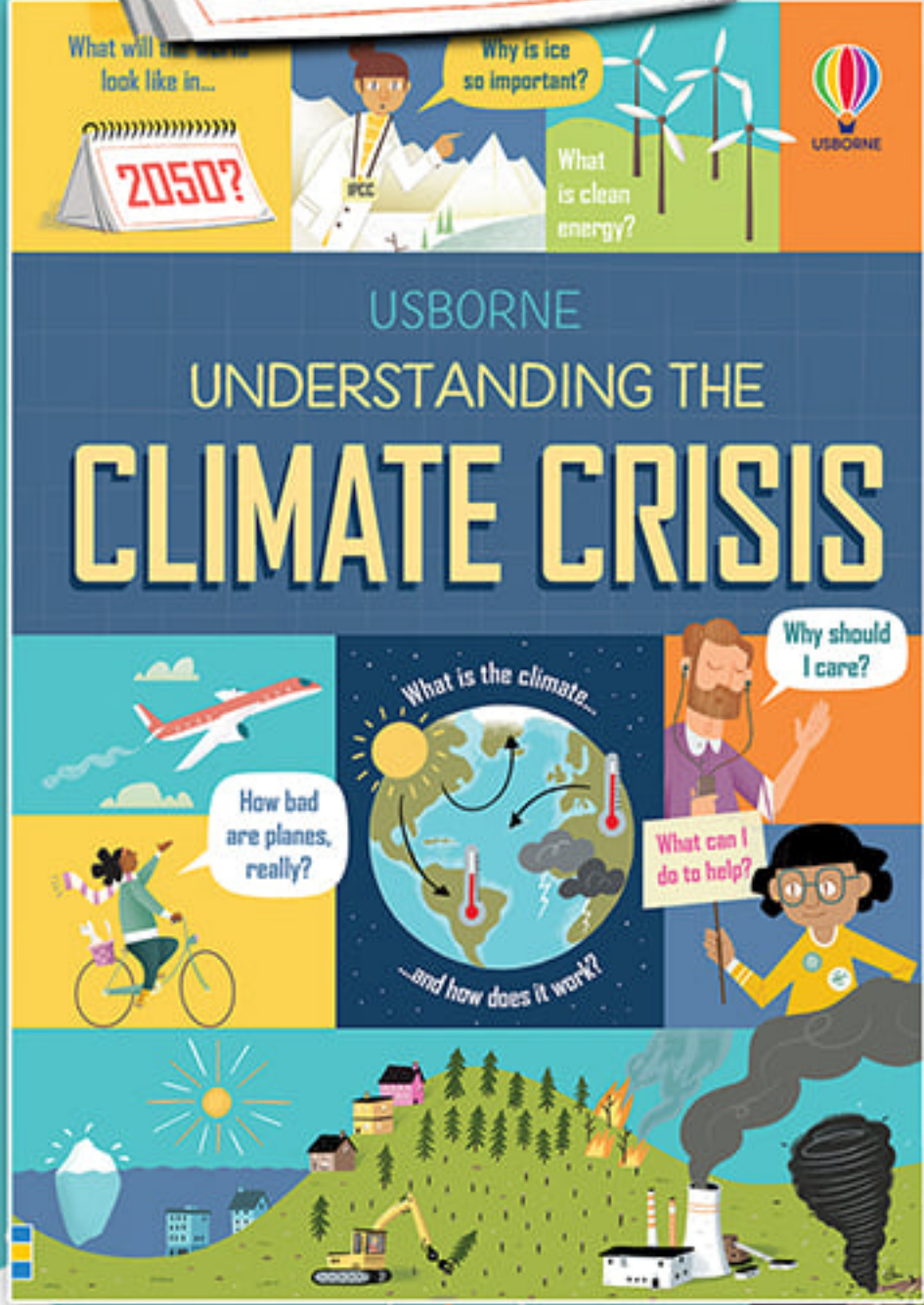
Discover how to camp in the wild, find out how to spot and avoid dangers, learn how to find your way in any environment, and master amazing knots. Includes step-by-step instructions and tips from Bear!



USBORNE
BOOKS & MORE

Help kids understand difficult topics

THE CLIMATE CRISIS IS REAL. IT IS ALREADY CHANGING THE WORLD AROUND US. THIS BOOK WILL HELP YOU TO UNDERSTAND HOW WE KNOW THIS TO BE TRUE, AND WHAT EFFECT IT MIGHT HAVE IN THE FUTURE. THE GOOD NEWS IS THAT WE HAVE A PLAN. BUT THE BIG QUESTION STILL REMAINS — WILL WE CHOOSE TO DO IT?



What makes a good choice?

Whether we're trying to reduce our emissions, or adapt to new conditions, we will have to ask the following questions about whatever we choose to do. Ideally, the answer to each one will be YES.

1. Is it fair?

Some people are worse affected than others by the crisis – particularly poorer people. Our choices need to take this into account. Ideally, the choices we make won't put anybody at a big disadvantage.

I'll lose my job on this oil field if we suddenly stop using fossil fuels. That's not fair!

Our country pollutes less than yours, but we're more at risk from the crisis. YOU should pay to repair the damage!

If you ban vehicles in cities, will it still be easy for people with disabilities to get around?

WORLD POLLUTION SUMMIT

2. Is it possible?

Even if an idea would work in theory, it has to work in practice to be useful.

Build a spaceship that collects energy from the Sun and beams it back to Earth? We don't have the technology!

3. Will people actually do it?

Good solutions are deliberately designed to make sure people are motivated to do them.

We could REWARD companies for emitting less CO₂?

LOW CARBON CASH PRIZE

People might buy eco-friendly things if they were CHEAPER!

100% HEMP CLOTHING

If we make cutting down forests ILLEGAL, will people stop?

I'd recycle more if it wasn't so confusing.



Messy choices

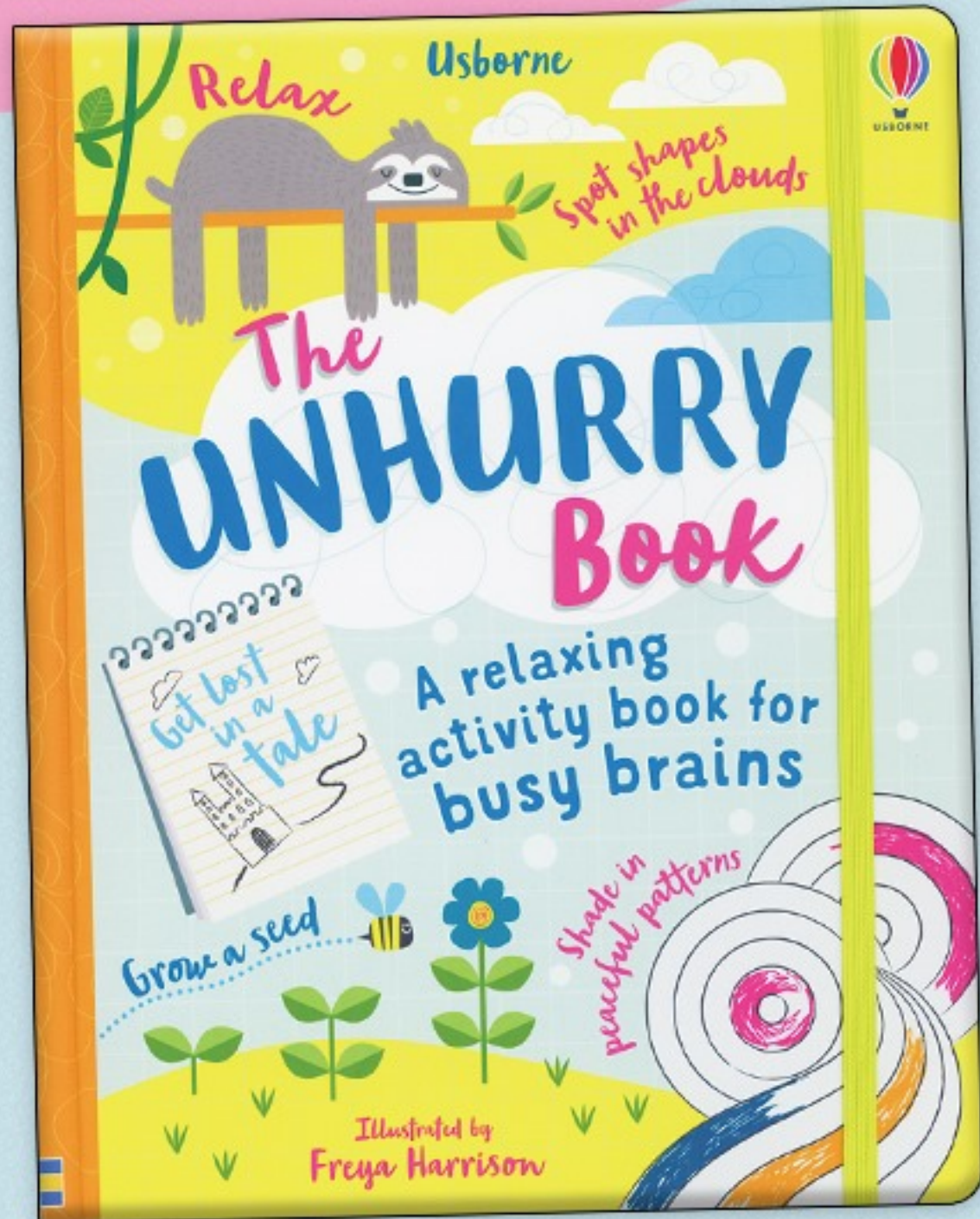
In reality, most choices will be a bit messy – they'll have a mixture of positive and negative consequences. So we'll have to choose what sacrifices we are willing to make.

They should build a dam here to power our city using water, not fossil fuels.

NO! Dams can harm the plants and animals that live in the river!

But we need to stop using fossil fuels! Which is more important, Dam?

The UNHURRY Book



This book is all about taking a little time to breathe, focus, and be calm.

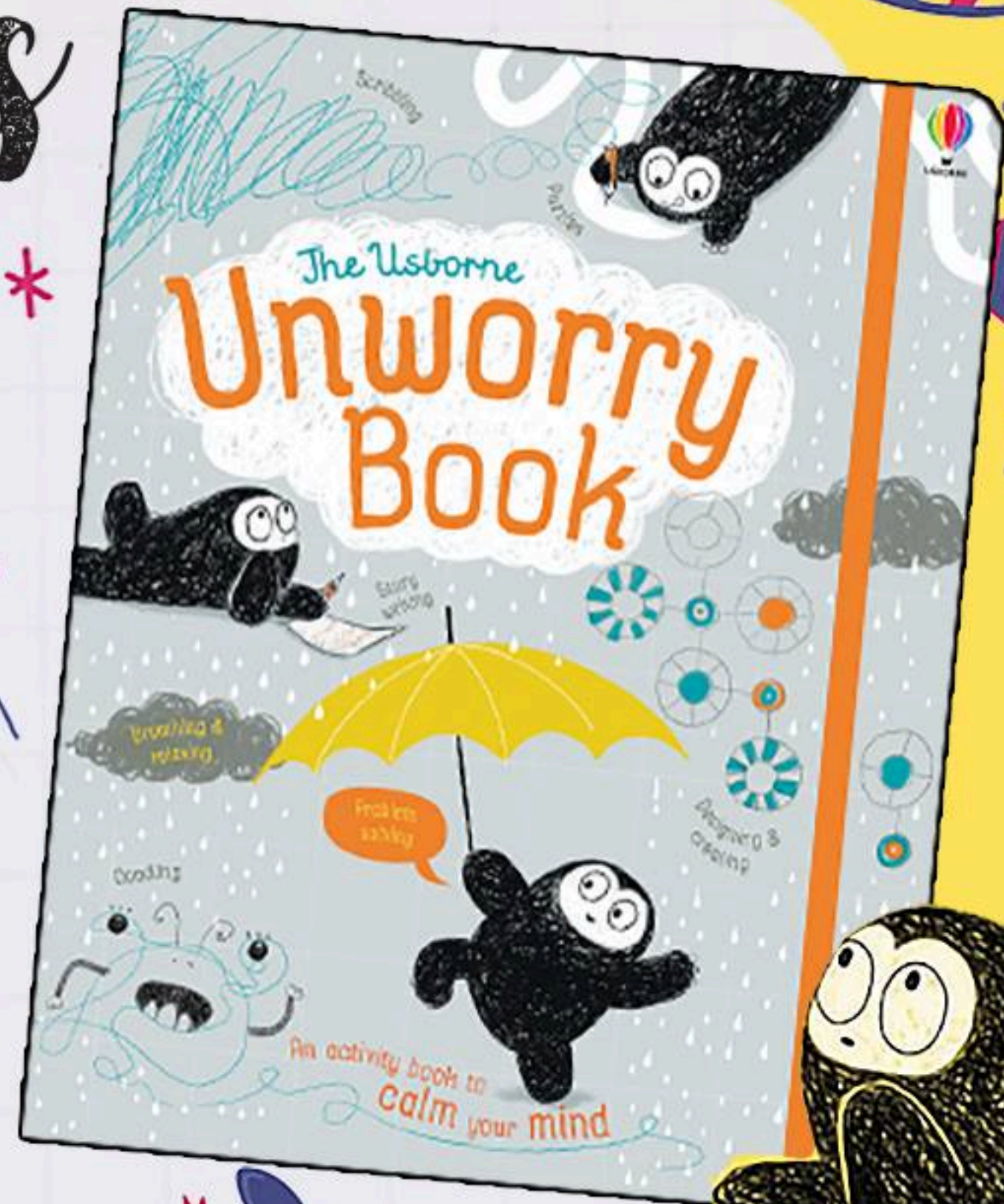
Try some yoga, color in soothing squiggles, or write a poem — take a quiet moment, just for you.



NEED A GOOD BOOK?

No Worries

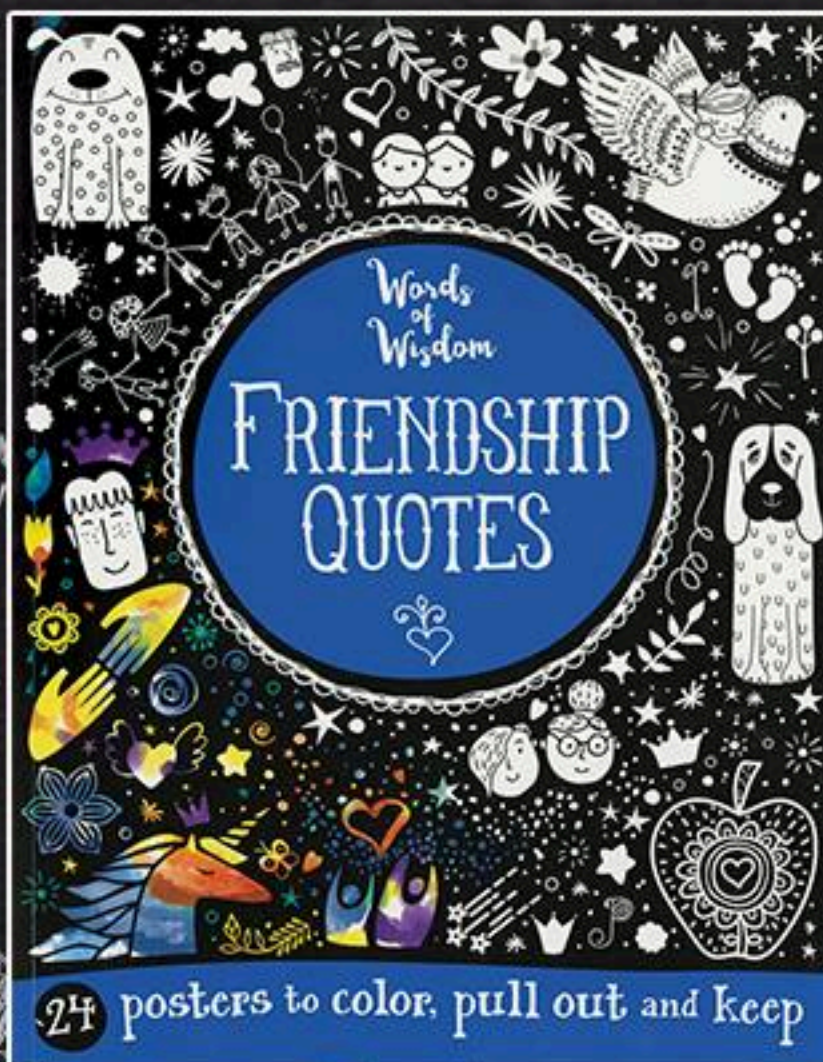
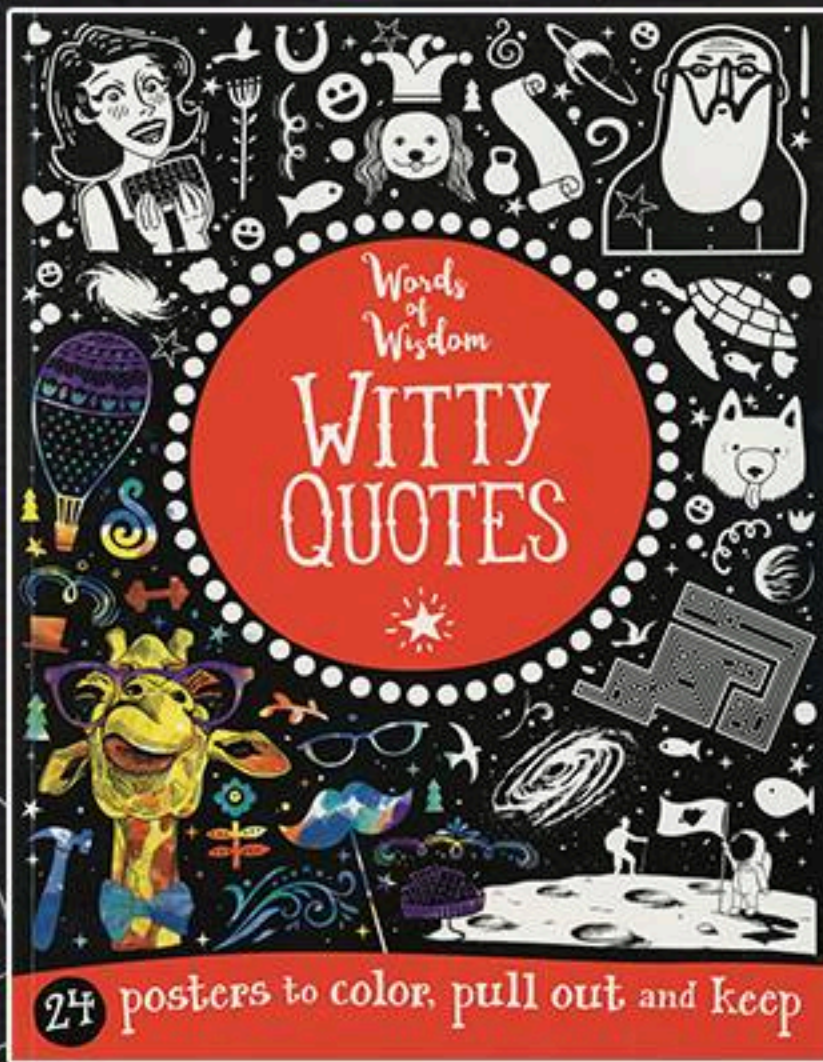
We all worry. This book is full of ways to get worries out of your head and onto paper, with things to doodle, draw, write, scribble and scrunch.



WHITE FANG



This special edition of Jack London's timeless classic – complete and unabridged – is beautifully illustrated by James Madsen. Follow the adventures of White Fang, half-wolf, half-dog, as he struggles for survival in the harsh, frozen wilds of northern Canada.



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BOOKS & MORE

WONDERFUL WORDS OF WISDOM

These large-format coloring/poster books allow readers to color and decorate uplifting, motivational words and beautiful artwork. Printed on perforated paper, each page can be easily removed for display.

Lights, Camera, Action!



This book will help you write all kinds of scripts – scary ones, exciting ones, and hilariously silly ones. It's full of tips and ideas that will help you every step of the way – from planning and writing, to putting on your very own shows.



Bringing characters to life

Your characters are the beating heart of your story. So how do you make up a good one? One way is to answer a few questions.

Pick one of the characters you created on the previous page and answer this questionnaire about them. Not all the details you invent will come up in your script, but your answers will help you understand what makes your character tick.

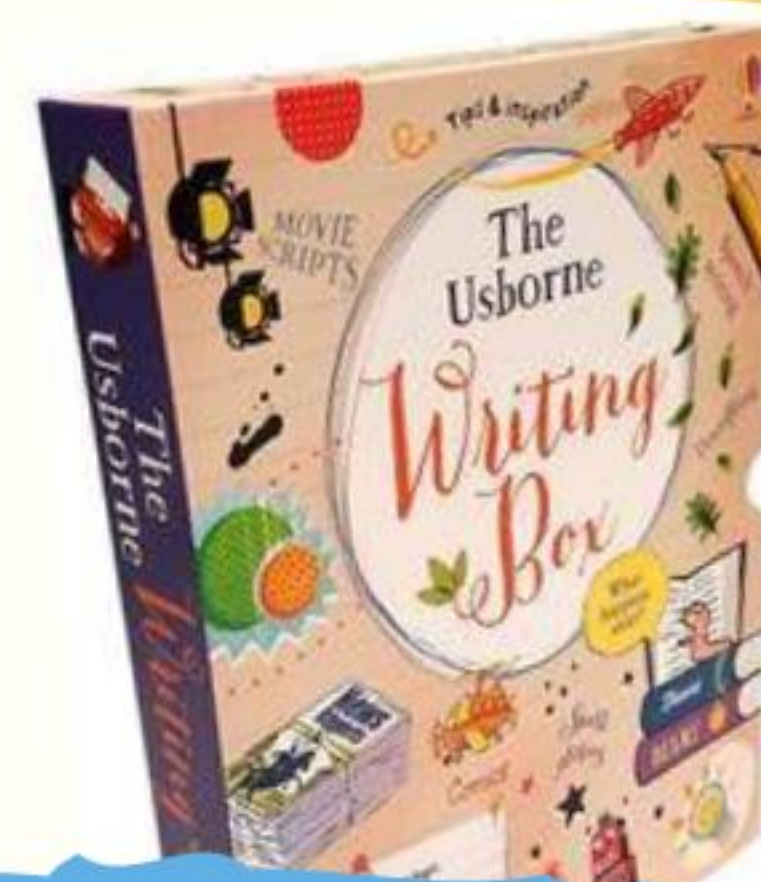
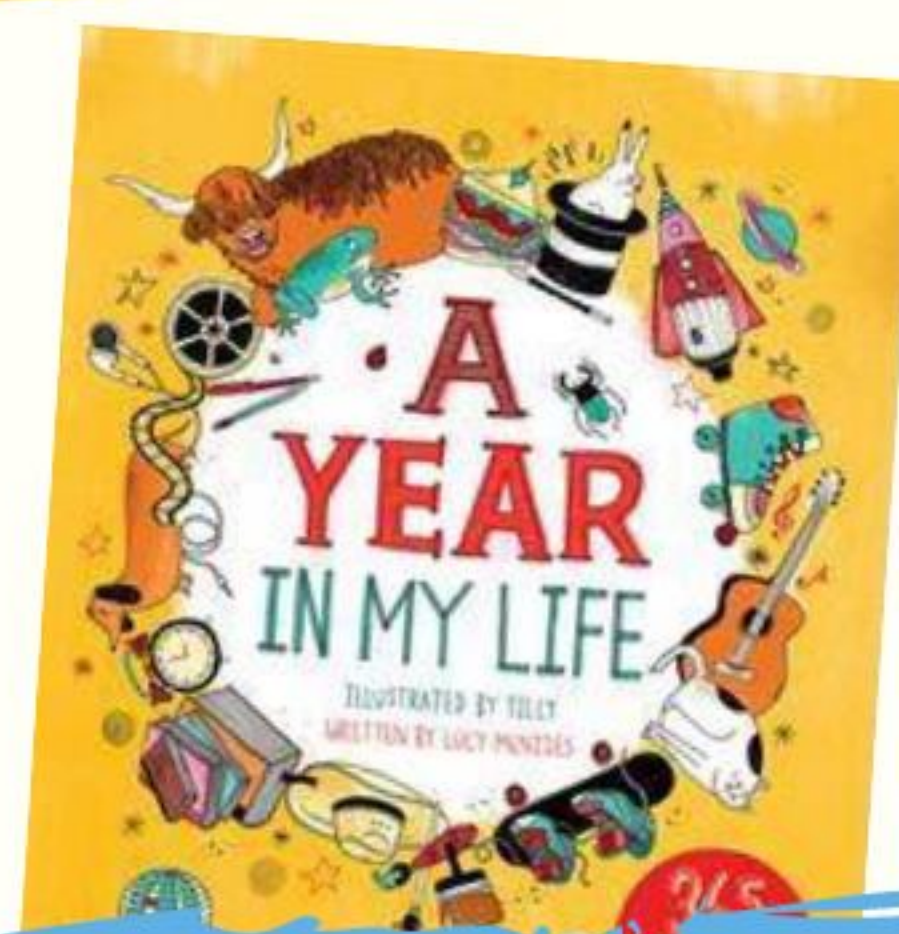
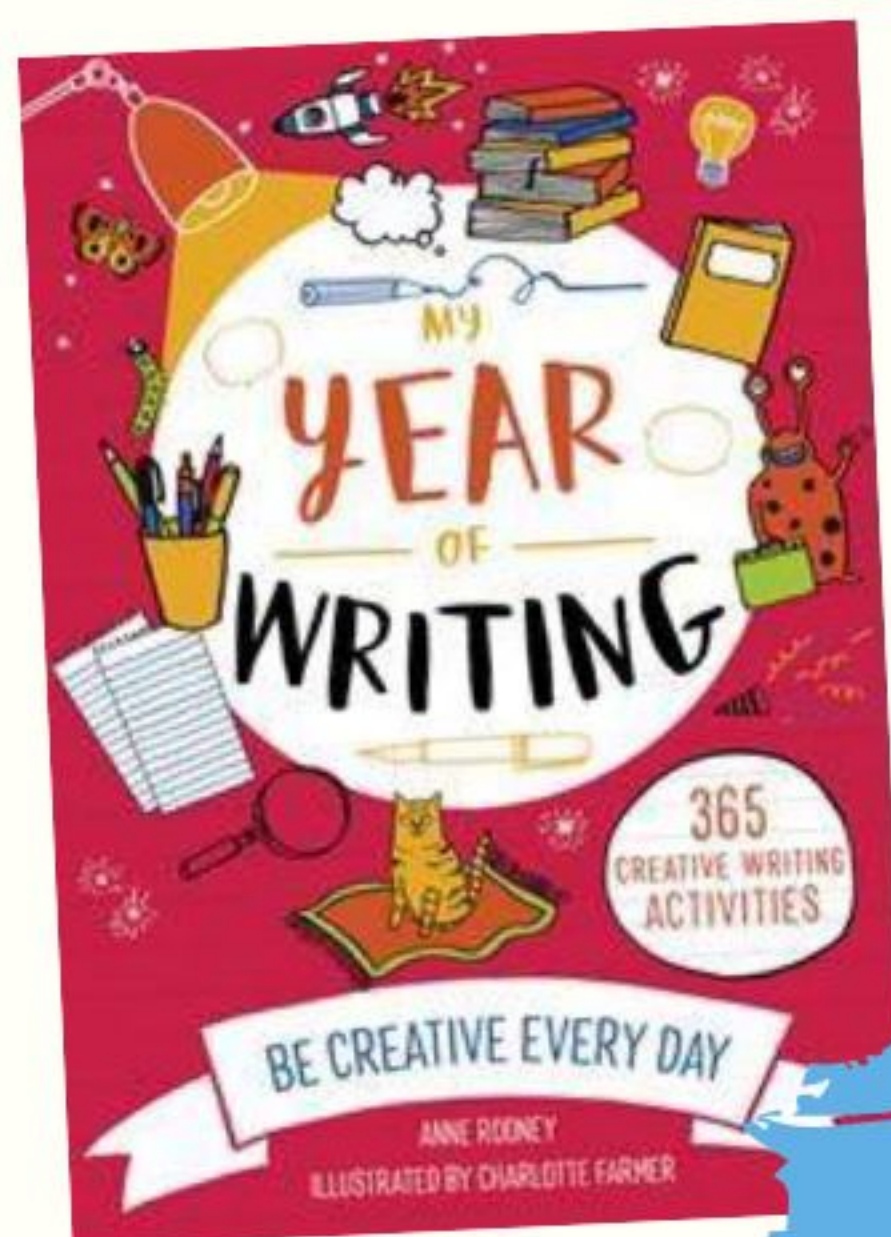
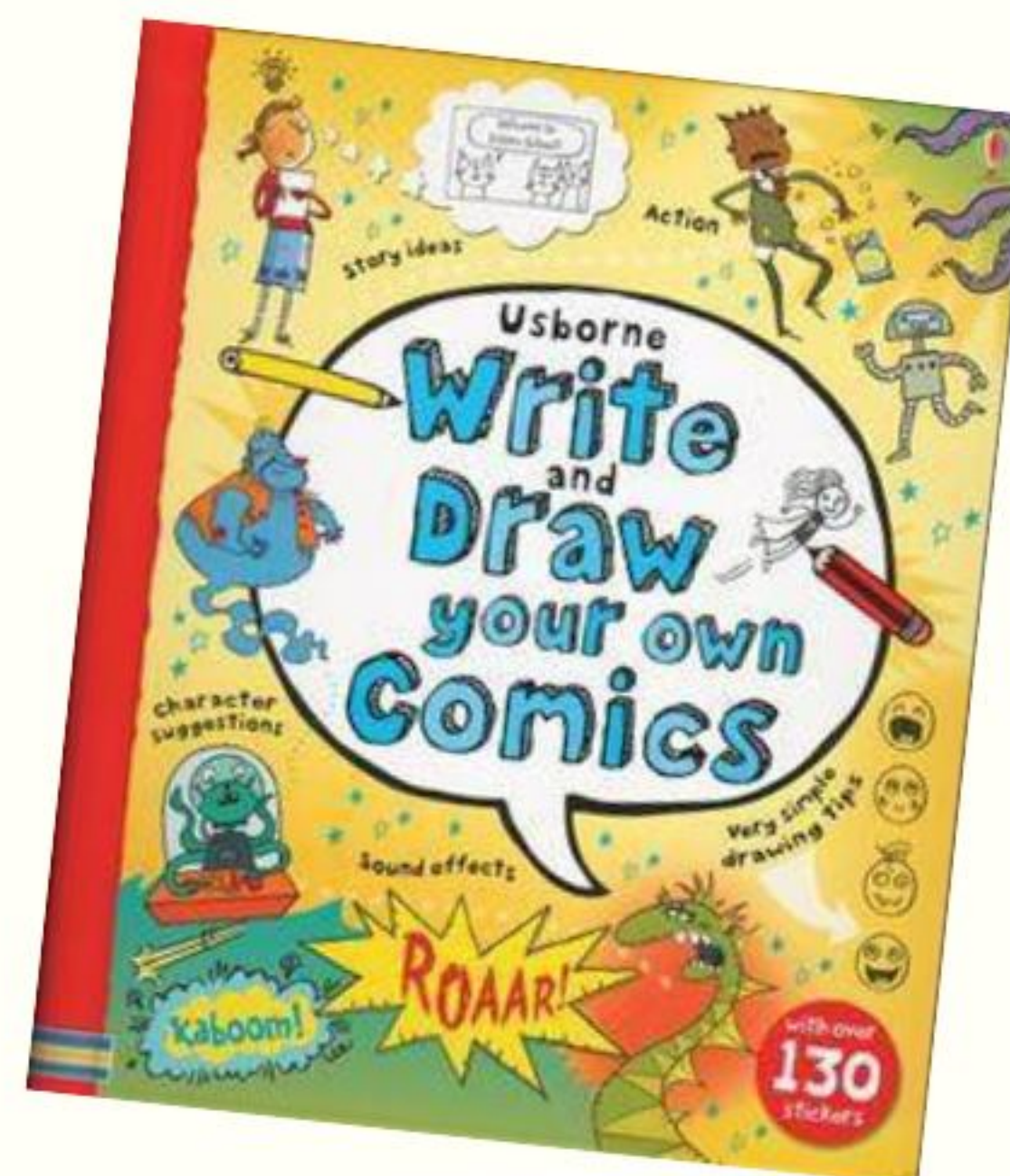
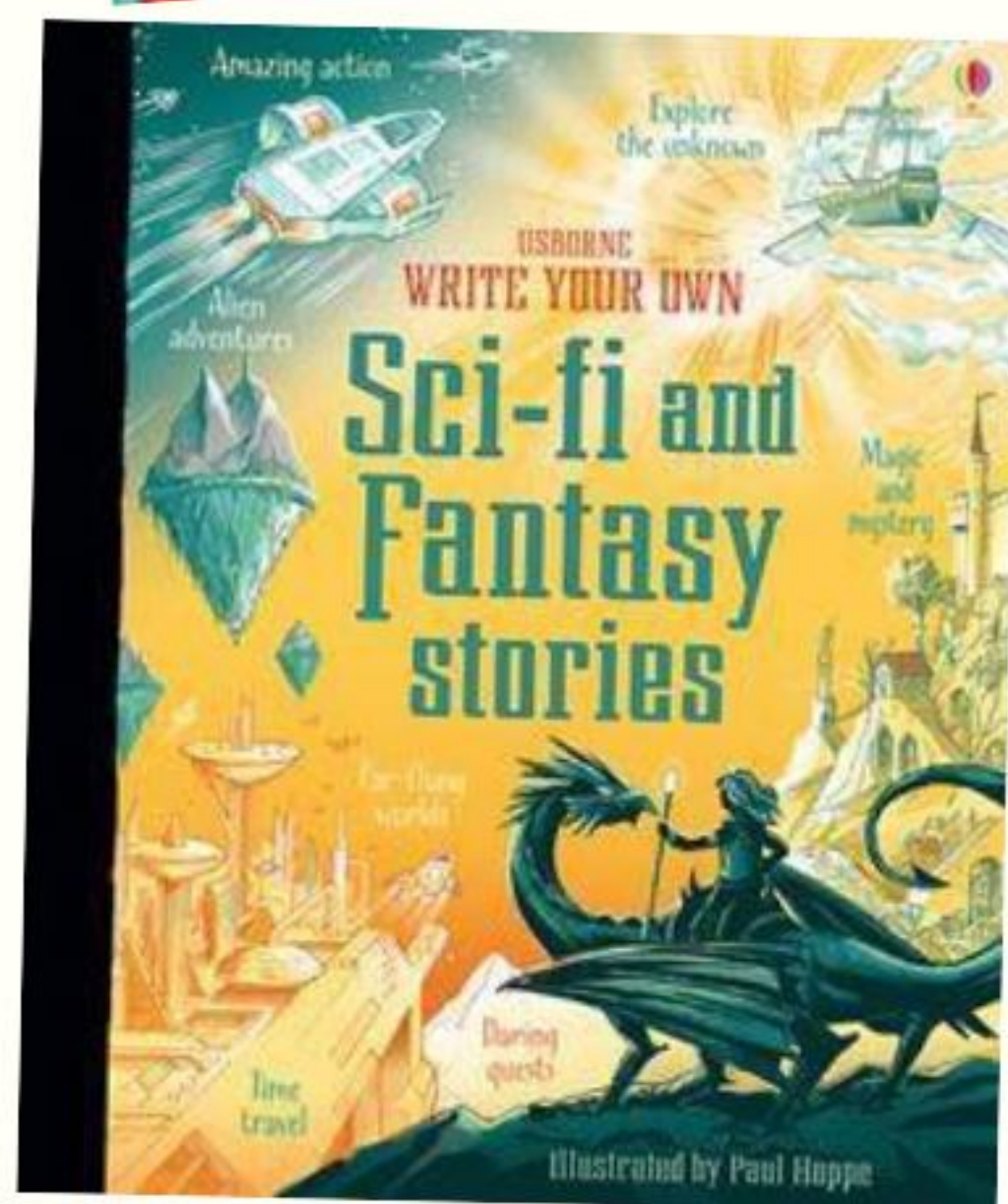
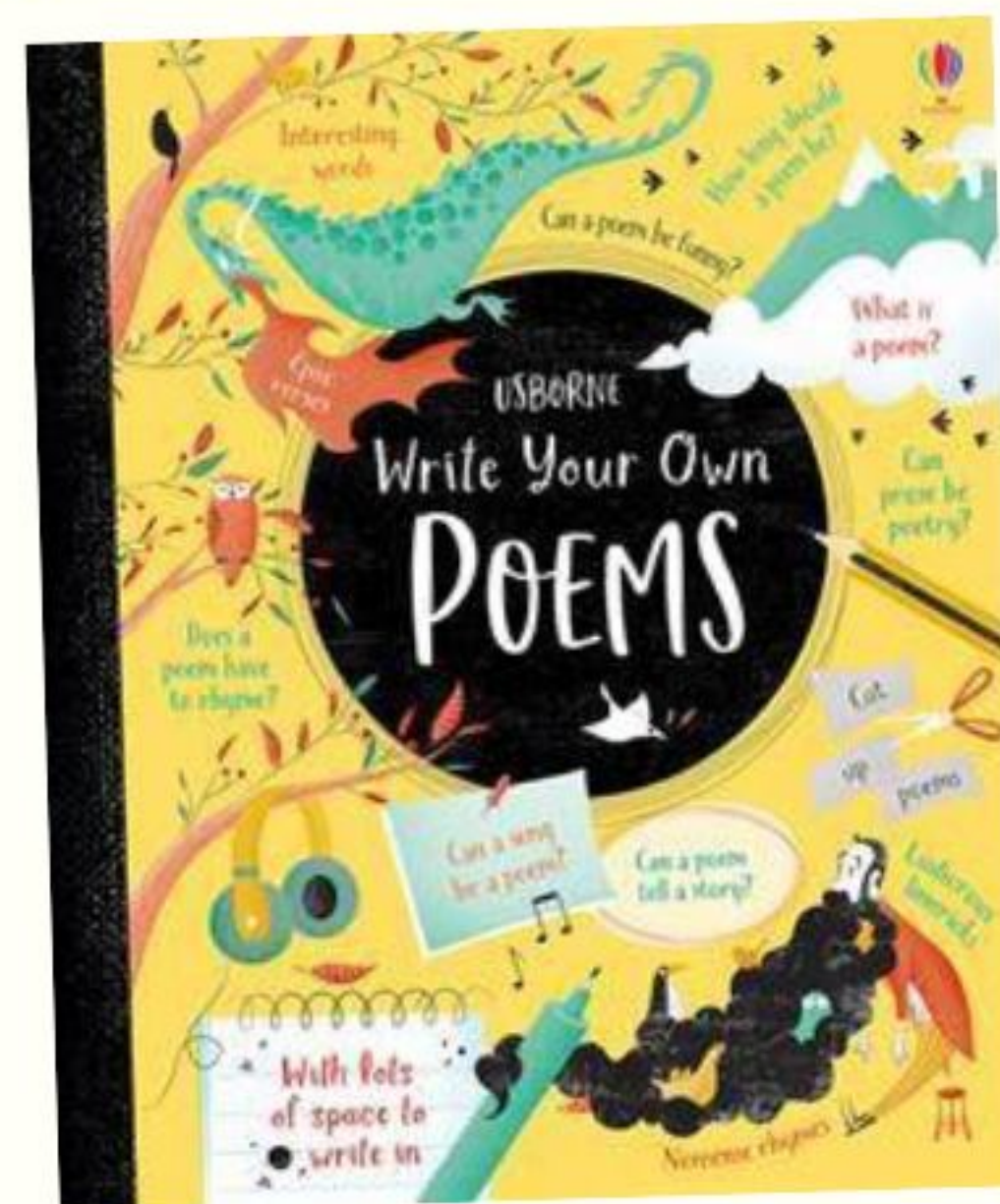
Name: _____
 Age: _____ Gender: _____
 Goal: _____
 Conflict: _____

Where does your character live?
 Who does your character live with?
 What does your character do every day?
 What three words best describe your character's personality?
 What does your character look like?
 How does your character feel?
 What's a character's favorite color?

Loves? _____
 Hates? _____
 Best qualities? _____
 Worst flaws? _____
 Best friend? _____
 Biggest enemy? _____
 Deepest secret? _____
 Biggest fears? _____
 How do your character's flaws, secrets and fears create problems?
 What kind of animal is your character most like, and why?
 What is your character's earliest memory?

It's a good idea to answer questions like these for all the important characters in your scripts.





WRITE AND CREATE



easy DIY steps

Hmm... WHAT SHOULD I WRITE ABOUT?

REVIEWS AND INTERVIEWS

USBORNE

WRITE and DESIGN YOUR OWN MAGAZINES

CUTTING & PASTING

STORIES ARTICLES DRAWINGS & PHOTOS

comics

pictures

pictures by cutting out... This technique is known as collage.

Cut out pictures from old newspapers and glossy magazines to make into new pictures.

could take your photos to cut out use in a collage.

The pieces first, glue them down you're satisfied how it all looks.

Try painting or decorating paper to cut shapes from.

Things don't have to make sense - let your imagination go wild.

Old newspaper or sheet music can make interesting patterns in pictures.

Cut-and-paste characters

Collage is a great way of inventing extraordinary characters to use in comics or to illustrate articles and stories. These characters might even inspire new ideas.

You could draw on extra details.

TIP
Keep leftover snippings to make cut-and-paste doodles and to decorate pages.

I'm Librosaurus - a living, breathing library that always knows what magazine you should read next.

Experiment with different options for legs.

If your character appears more than once, instead of gluing the pieces down, photograph them in one position...

...then rearrange the pieces, adding any extra bits you need, and photograph them again.

Goosorgeous darling - hold that pose!

Making magazines is fun and easy - and this marvelous title will help you every step of the way.

A new addition to the popular Write Your Own Series!

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