



RECOMMENDED FOR

Primary aged readers
(ages 8–10; years 3 to 5)

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KEY CURRICULUM AREAS

- **Learning areas:** English; Science
- **General capabilities:** Literacy; Critical and creative thinking

REASONS FOR STUDYING THIS BOOK

- With Edie's love of conducting scientific experiments – and their sometimes disastrous results – **Edie's Experiments** is a great way to introduce the scientific method to primary school readers.
- Particularly relevant to the Year 4 science curriculum, where students learn to identify investigable questions, make predictions, conduct investigations, record observations and communicate their findings.

THEMES

- Fitting in
- Science / STEM / STEAM
- Science experiments
- Friendship
- Family
- Identity
- School
- Humour

PREPARED BY

Penguin Random House Australia
and Charlotte Barkla

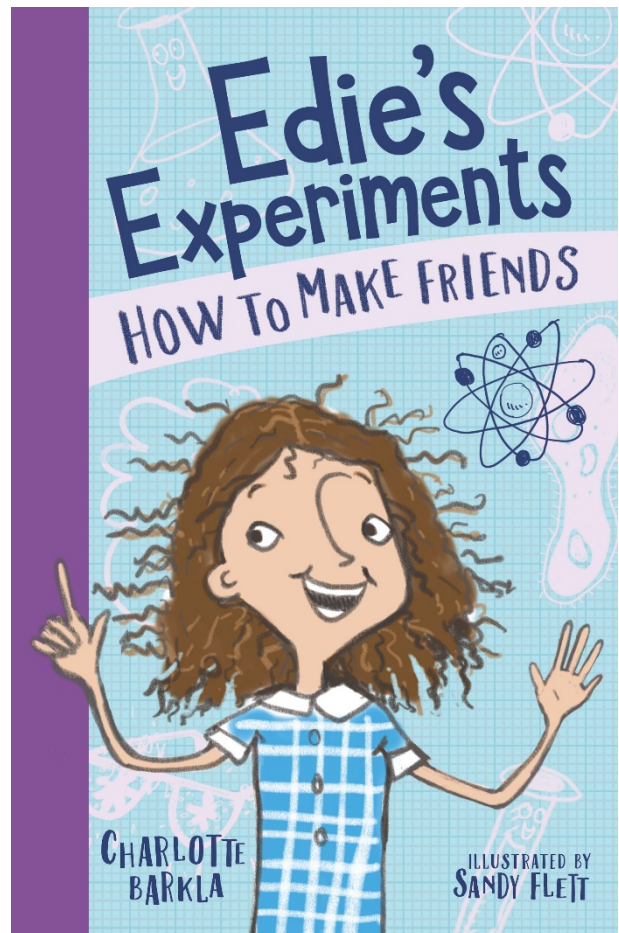
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Edie's Experiments 1: How to Make Friends

Charlotte Barkla
Illustrated by Sandy Flett

PLOT SUMMARY

I'm Edie and I love science. So I when I started at a new school, I decided it could be one giant experiment.

Can I give you some advice? Avoid **sliming** your entire classroom. You could end up in **trouble** with your teacher, your new classmates and the principal.

Between the great slime **fiasco**, the apology cookie **surprise** and the wrinkle cream **mix-up**, I've discovered making **friends** isn't an exact science!

ABOUT THE AUTHOR

Charlotte is an Adelaide-based writer who worked as a civil engineer and physics teacher before rediscovering her love for children's literature.

As well as dreaming up funny stories over a cup of coffee, Charlotte's favourite things include autumn leaves, family bike rides and travel.

ABOUT THE ILLUSTRATOR

Sandy Flett is an illustrator and author who loves to create cartoons and kooky characters. Sandy has illustrated children's book series *Edie's Experiments* and *Juno Jones*, and is the creator and presenter of the internationally successful children's drawing channel on YouTube, *Sandy Flett's Kids Art School*.

AUTHOR'S INSPIRATION

Charlotte Barkla says:

I wanted to write a book that featured a fun and funny girl protagonist, who was adventurous, hilarious, and a little bit disastrous, but who was also endearing and relatable. I also had an idea for making a children's fiction book where the plot was entirely comprised of science experiments, and where the character thought of the whole world in terms of science. (I used to work as a civil engineer and physics/maths teacher, so I wanted to explore the fun side of STEM.) I put these two ideas together, and *Edie's Experiments* was born!

When brainstorming the plot, I tried to think of all the crazy things that a girl who loved science might try doing, and all the possible hilarious things that could go wrong. Then I reordered the events until I had the right combination of things going from bad to worse, to even worse still! I thought of what might make my own kids laugh, and the kids that I taught at school. (As well as what I found funny myself, and would've enjoyed reading as a kid.)

The character of Edie isn't inspired by anyone in particular, but her younger brother Max has many features based on my own son. He was two years old at the time of writing, and I used a number of his characteristics when forming Max. (Especially his shaggy hair, cheeky grin, and the grumpy expressions he can pull.)

In a way, my three sisters were also the inspiration behind this book, as they gave me the practice for creating imaginative stories. We used to make up stories and plays when we were growing up. Sometimes we'd make up short stories aloud (when we were supposed to be going to sleep), or type them up

on our computer. I didn't keep a notepad of stories, but now I take a notebook everywhere I go!

Jacaranda trees are mentioned a number of times throughout the book. Where I grew up in Queensland jacaranda trees were prevalent, and I remember lots of them around the school playground and the hall where I used to go for piano lessons. I love the thick purple carpet where jacarandas drop their flowers. When I wrote about Edie's school playground, I had my own primary school playground in the back of my mind, to help visualise the setting.

I love reading, and I used to read voraciously as a kid. Funny stories were (and still are) my favourite. In primary school I'd race for the 'G' shelves of the school library, to see what Morris Gleitzman book I could borrow next.

I loved writing *Edie's Experiments*, and I hope you love reading it too!

QUESTIONS AND ACTIVITIES

1. In *How to Make Friends*, Edie accidentally causes a slime explosion in her classroom. Draw a picture of what your classroom might look like covered in slime. You might even like to draw your teacher or your classmates with slime splattered on them.
2. Edie's school principal, Ms Newton, loves chihuahuas. She has chihuahuas on the corners of her glasses, chihuahua earrings and a bracelet with puppy pendants.

Choose your favourite animal (or your favourite food, or favourite colour/shape) and design some clothes, hats, shoes or jewellery to suit the theme.

3. Sandy's illustration of Edie's vision for her mud fort is pretty magnificent. It looks like a tropical paradise!

Design and draw your own eco fort. It could be an eco house, an eco apartment building, or even an eco school! Label its features.



4. In *How to Make Friends*, Edie enjoys experimenting with food. (Chapter 1 refers to a time she once made breakfast pizzas, using cereal and milk as a pizza topping, which didn't turn out very well for her!)

Brainstorm an idea for creating your own unique meal, then draw a picture of it. It could be delicious or disgusting – be as creative as you like!

You could choose your two favourite foods, and combine them into something new and interesting. For example, ice cream + stir-fry = stir-fry ice cream, or watermelon + muffins = watermelon-flavoured muffins.

5. Edie likes to think in terms of experiments. For example, in *How to Make Friends*, she tries to impress her new classmates by surprising them with a slime experiment, and tries to help her mum be less stressed by making moisturiser.

Brainstorm an idea for something Edie might want to do, and an experiment that she could try. Use this template for brainstorming:

Edie wants to _____ so she designs an experiment to _____.

For example: Edie wants to stop her Dad snoring, so she designs an experiment to wake him up by blasting trumpet music in his ear, whenever he starts snoring.

Then write up the **Experiment Title**, **Aim**, **Equipment** and **Method** for Edie's next experiment.

LUNCHTIME DETENTION EXPERIMENT

AIM
To experience a lunchtime detention.

EQUIPMENT

- * Torture chamber (I'm guessing?)
- * Slime-offending children like me
- * Army Sergeant or ex-criminal to scare us into good behaviour (I think?)

METHOD

1. Get yelled at by the army sergeant.
2. Do one-thousand push-ups, chin-ups, etc.
3. Promise to behave impeccably for the rest of my life.

6. Here's a little taste of Edie's next adventure. Use these ideas to brainstorm what might happen in Book 2. Write a scene or a short story if you like.

It's Eco Month at school, and Mr Zhu has announced a competition to design an environmental project for the school.

Edie is incredibly excited. After all, she's the most enthusiastic scientist in the whole school (possibly on the whole planet). She's pretty sure she has first place in the bag.

That is, until Dean Starlight arrives in Class 5Z. Not only is his hair impeccable, he's a science genius who's intent on winning first place . . . and he'll do anything it takes to make sure he wins.

Before long, the competition isn't just a 'competition' anymore: it's a war, with each team determined to sabotage the other's project and clinch first place.

Here are some questions to get you started:

What do you think Edie's project for the Eco-Competition will be?

What will Dean be like? (How will he talk? What will he look like?)

How will Dean sabotage Edie's project? What will Edie do to retaliate?

Who will win in the end?



7. Edie has a pretty cool science kit (which sometimes gets her into trouble!). If you had your own kit that you carried everywhere with you, what would be inside? It might be a science kit, or just a cool bag or box that has all your favourite things inside. Draw a picture of what it would look like.
8. In *How to Make Friends*, Edie creates her own wrinkle cream, after being inspired by the Miraculous Moisturiser she tested out at the shopping centre.

If you could invent anything you liked, what would it be? Brainstorm your own idea for a product, creation or invention. It could be a toy or game, or perhaps it could be a robot or machine that makes life easier for you by doing your chores, or your homework!

Then create a pamphlet that advertises your idea or product, using Sandy's sketch of the wrinkle cream pamphlet for inspiration. You could work in pairs or groups to come up with a skit to advertise your product, then present it to your class.



9. Sometimes it's easier to write a story when you already know the characters. (Charlotte says: 'When I was a kid, I used to write stories based on books I'd read, or TV shows I'd seen.')

Choose one of the characters from Edie's Experiments (or from a different book, TV show or movie) and write a short scene. You can use this template to brainstorm your ideas:

Characters: _____

Setting: _____

What happens? _____

Example:

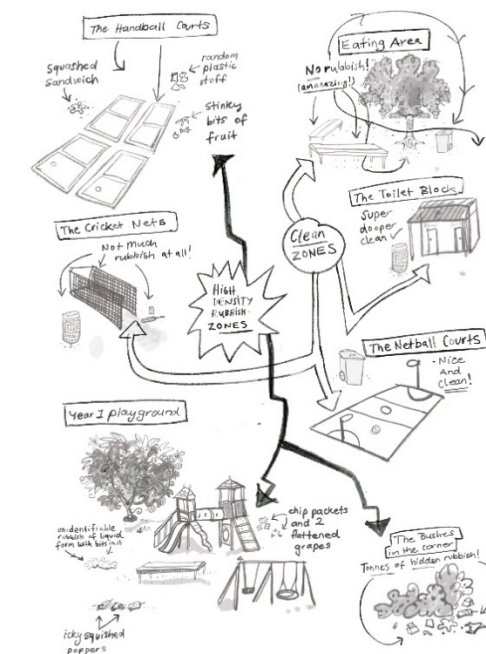
Characters: Edie and Annie B

Setting: Annie B's bedroom

What happens? They're deciding what experiment to do next. Edie wants to paint Annie B's bedroom walls, but Annie B isn't sure it's a good idea.



10. In *How to Make Friends*, Edie is surprised when the detention room isn't as torturous as she'd imagined. Draw a picture of your own detention room. Maybe you could make it creepy and scary, like Edie imagined it to be (using Sandy's illustration for inspiration). Or perhaps it could be a fun-filled zone with a jumping castle, cinema and unlimited lollies. Be as creative as you like!
11. In *How to Make Friends*, Edie draws a map of the playground, when she's doing litter duty, to record the rubbish she picks up in different locations.



12. Jacaranda trees are mentioned a number of times in *How to Make Friends*. Research jacaranda trees – Where are they native to? What do they look like? How big are they? You might like to draw a picture.

MORE SCIENCE EXPERIMENTS

Edie loves science experiments. Here are some fun science experiments that could be used in the classroom.

Marshmallow Engineering Challenge

Aim: To create the tallest structure you can, using only marshmallows and skewers.

Equipment: Marshmallows, wooden skewers, ruler (for measuring the structures).

Method:

1. In groups, use marshmallows and skewers to build a structure, in a maximum of 15 minutes.
2. At the end of the time limit, measure the structures to determine the winning team.

Note: For an added challenge, you could limit the number of marshmallows or skewers available to the teams.

Glass Jar Water Cycle

Aim: To create your own water cycle in a jar.

Equipment: Glass jar, ceramic plate, hot water, ice cubes.

Method:

1. Half fill the jar with hot water.
2. Place the ceramic plate on top of the jar.
3. Place ice cubes on top of the plate.
4. Note what happens to the underside of the ceramic plate. What process does this represent? Draw a diagram of what you have observed.

Notes: The warm air inside the jar should condense underneath the cool plate, and form water droplets.

Further activity: Research the water cycle on earth. Draw a diagram labelling the important parts of the process, including precipitation, condensation, evaporation and transpiration.

Candy DNA

Aim: To investigate the structure of the DNA Double Helix.

Equipment: Toothpicks, 4 cups (to separate the lollies by colour), lollies (including long liquorice sticks to represent the sugar phosphate backbone, and 4 different types of coloured lollies to represent the bases).

Method:

1. Research the structure of a DNA Double Helix. Note that it looks a bit like a ladder, twisted

around. The components that make up the DNA Double Helix are: Adenine, Thymine, Cytosine and Guanine – these make up the 'rungs' of your ladder.

2. Sort the lollies into different groups to represent the four bases (A, T, C and G).
3. Pair one A and T base together using toothpicks, and one C and G base together. Repeat until all the lollies are used up. Now, the 'rungs' are ready!
4. Line up two long pieces of liquorice, for the two sides of the sugar phosphate backbone. (These are like the side rails of your ladder.)
5. Join each toothpick (containing a pair of bases) to the liquorice.
6. Pick up your Double Helix DNA model, and twist to give it its shape!

Baking soda honeycomb reaction

Make sure you have an adult supervising this one, as it involves a hot stove!

Aim: To observe a chemical reaction (and create a delicious treat!).

Equipment: A large saucepan, baking tray, hot plate.

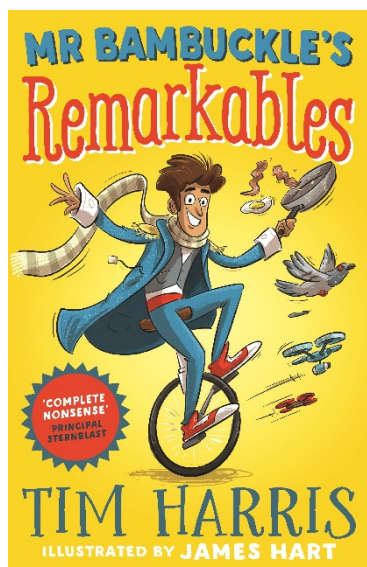
Ingredients for making honeycomb: There are lots of different recipes available, but here is one you could use – 1 cup white sugar, $\frac{1}{4}$ cup golden syrup, 3 tablespoons of water, 2 teaspoons of bicarbonate soda.

Method:

1. Combine sugar, golden syrup and water in a saucepan. Heat on the hot plate until dissolved, then bring to the boil for five minutes.
2. Remove saucepan from the heat. Add bicarbonate soda and mix it through. (This is the chemical reaction: the mixture will double in size!) Write down your observations.
3. Pour the mixture into the tin, then refrigerate.
4. Once it has cooled, break the honeycomb into pieces. You may notice some bubbles, showing where the chemical reaction occurred!



FURTHER READING FROM PENGUIN RANDOM HOUSE AUSTRALIA



Mr Bambuckle's Remarkables
by Tim Harris

He's the first teacher to cook us breakfast.

Is his spark-maker beetle really that dangerous?

I heard he drank yak's milk in Mongolia.

He's the only person who isn't afraid of Canteen Carol.

My mum says he used to be in the circus.

The class in room 12B has a new teacher, and nothing is ever going to be the same . . .

Teachers' resources available.



Girl Geeks 1: The Hackathon
by Alex Miles

Hamsa's teacher has announced that their class will be doing their very own hackathon.

A hack-a-what? thinks Hamsa. She doesn't know anything about tech or coding!

Can Hamsa and her team come up with the goods or will things fall apart as she plays it too cool for school?

Teachers' resources available.



Friday Barnes 1: Girl Detective
by R.A. Spratt

When girl detective Friday Barnes solves a bank robbery she uses the reward money to send herself to the most exclusive boarding school in the country, Highcrest Academy.

On arrival, Friday is shocked to discover the respectable school is actually a hotbed of crime. She's soon investigating everything from disappearing homework to the Yeti running around the school swamp. That's when she's not dealing with her own problem – Ian Wainscott, the handsomest boy in school, who inexplicably hates Friday and loves nasty pranks.

Can Friday solve Highcrest Academy's many strange mysteries, including the biggest mystery of all – what's the point of high school?

Teachers' resources available.



WORKSHEET: RECORDING AN EXPERIMENT

Use this template to create an experiment and record the results!

Experiment title	
Aim	<i>What do you want to find out in this experiment? What question do you want to answer?</i>
Hypothesis	<i>What do you think will happen?</i>
Equipment	<i>What tools or supplies will you need?</i>
Method	<i>What steps will you take to test your hypothesis?</i>
Results	<i>Observe and record what happens in your experiment.</i>



WORKSHEET: WHAT TREE DO YOU SEE?

Explore your local neighbourhood to see what different types of trees you can see. Record your observations in a table below.

Tree name	Features (height, colour of bark and leaves)	Sketch of the leaves or flowers



ORDER FORM

TITLE	AUTHOR	ISBN	SCHOOL YEAR	RRP	QTY	TOTAL
Eddie's Experiments 1: How to Make Friends	Charlotte Barkla	9781760891770	3-5	\$14.99		
Eddie's Experiments 2: How to Be the Best (available 2 July 2020)	Charlotte Barkla	9781760891763	3-5	\$14.99		
Mr Bambuckle's Remarkables	Tim Harris	9780143785859	3-6	\$14.99		
Girl Geeks 1: The Hackathon	Alex Miles	9780143795056	3-6	\$14.99		
Friday Barnes 1: Girl Detective	R.A. Spratt	9781760890735	3-6	\$15.99		
TOTAL						

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