KAY'S ANATOMY

A COMPLETE (AND COMPLETELY DISGUSTING) GUIDE TO THE HUMAN BODY

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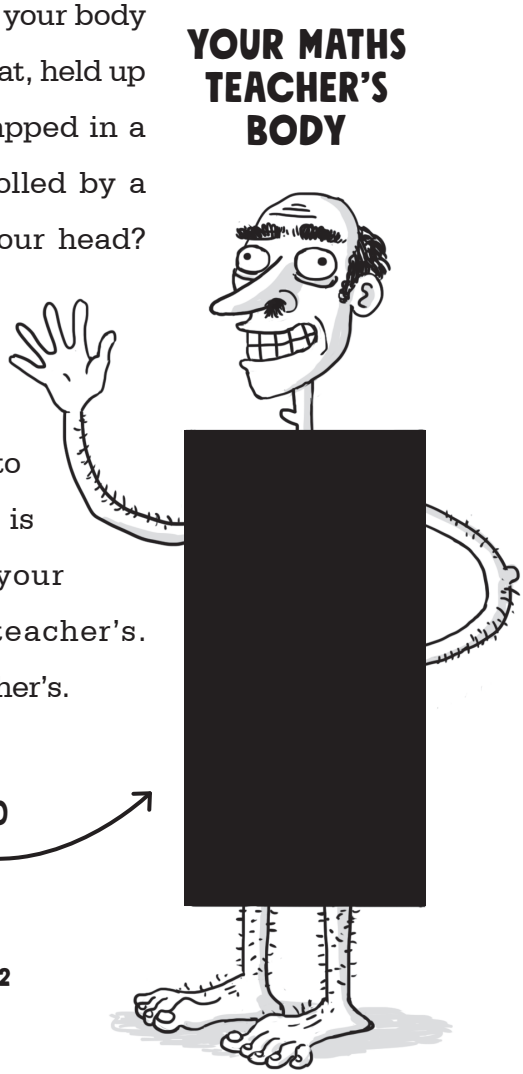
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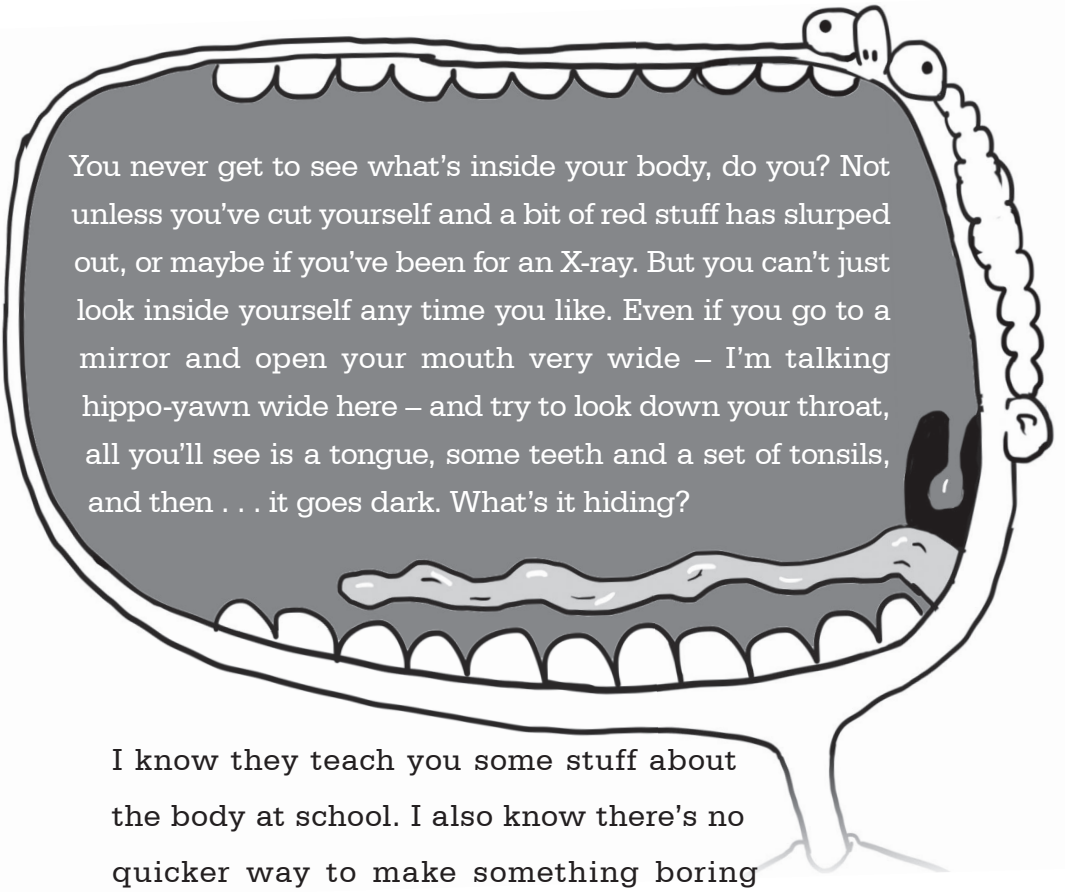
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DO YOU EVER THINK about your body? Like really, *properly* think about it? I mean, sure, you can't help it when you've stubbed your toe or you've got earache or you've caught a stomach bug and feel like you're going to literally poo out your guts and your lungs and your brain, but . . . do you know what's actually going on in there?

Have you ever thought that your body is just a strange lump of meat, held up by a big pile of bones, wrapped in a bag of skin, and all controlled by a crazy supercomputer in your head? Oh, you haven't? Sorry if I've freaked you out. But what I'm saying is your body is *weird*. I don't mean to be rude. Everybody's body is weird – yours, mine, your parents', your maths teacher's. Especially your maths teacher's.





You never get to see what's inside your body, do you? Not unless you've cut yourself and a bit of red stuff has slurped out, or maybe if you've been for an X-ray. But you can't just look inside yourself any time you like. Even if you go to a mirror and open your mouth very wide – I'm talking hippo-yawn wide here – and try to look down your throat, all you'll see is a tongue, some teeth and a set of tonsils, and then . . . it goes dark. What's it hiding?

I know they teach you some stuff about the body at school. I also know there's no quicker way to make something boring than forcing you to sit on an uncomfortable plastic chair and learn about it from a whiteboard. But just because your teacher might be boring, that doesn't mean the thing they're telling you about is. (Please note: this doesn't apply to maths. Maths would be boring even if a kangaroo in a bow tie was teaching you fractions while twerking.) The human body is a scientific marvel – an incredible machine that's been perfected over the last seven million years, give or take a few days. It's more advanced than a space station and smarter than the speediest super-

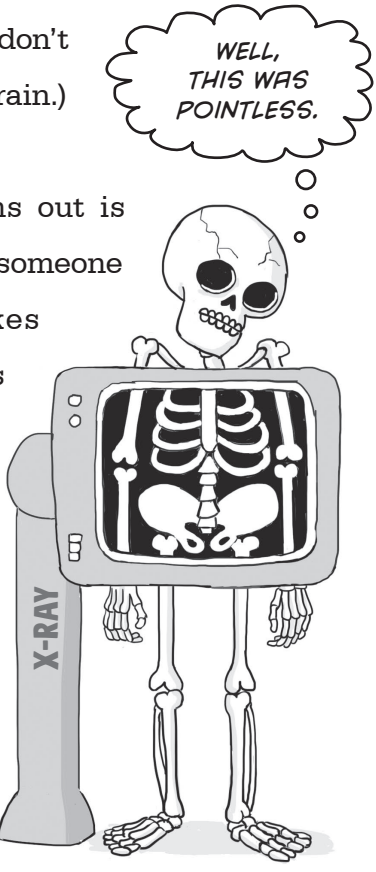
computer. I'm not kidding – your brain can process 400 billion things a second. And 400 billion is massive. If you wanted to count to 400 billion, it would take you over twelve thousand years. (Don't try, or you'll miss dinner.)

LOOK, I GET IT. When you're given a new toy, the last thing you want to do is read the instruction manual – you just want to start playing with it. But you've had your body for years and years now, and I bet you don't know half the things it can do. It's finally time to open the instructions.

I'm going to take you through the body, organ by organ. When I say 'take you through' it, don't panic, I'm not going to dress you up in wellies and a waterproof jacket, put you into a shrinking machine and make you wade through miles of intestines. Firstly, I'm not totally sure that shrinking machines exist. Secondly, we'd get absolutely covered in poo. Not to say there won't be poo in the book – how could there not be? We all do it. Even your maths teacher. Sorry, I didn't mean to make you think of your maths teacher pooing. By the way, did you know that about a quarter of your poo is *alive*?! Don't worry, you're not about to get attacked by zombie turds –

it's just bacteria. Well, I say *just* – there's trillions of them in there. In fact, there are more bacteria in every poo you do than there are pages on the entire internet.

It's time to find out all of your body's weird and wonderful secrets. Like the brain, for instance, which feels no pain. You could take a big stick and mush it around your brain and it wouldn't hurt at all. (Please don't take a big stick and mush it around your brain.)



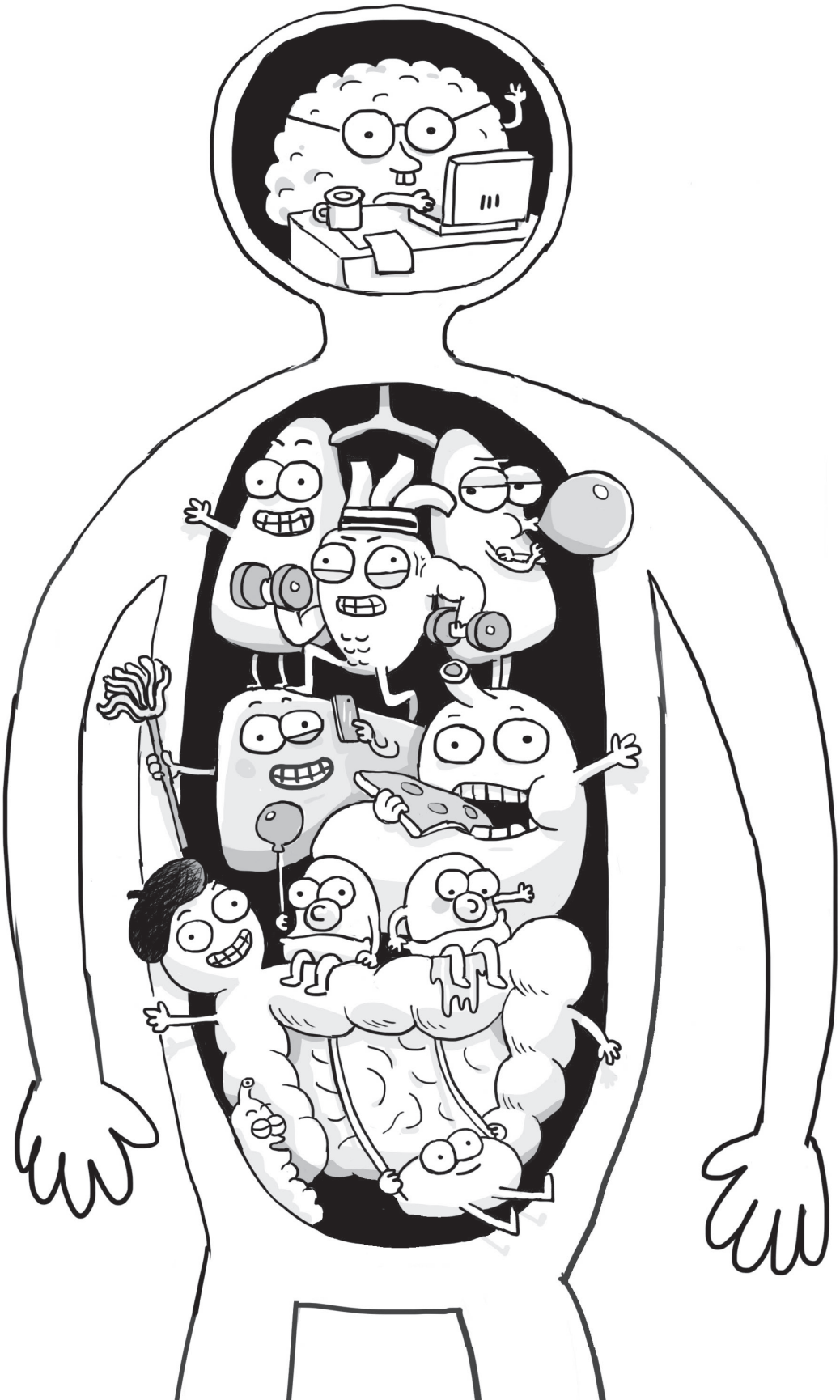
Then there's your heart, which it turns out is neither bright pink nor heart-shaped, so someone should urgently tell whoever makes Valentine's Day cards. And it pumps enough blood around your body every day to fill ninety (pretty repulsive) baths. And how about your lungs, which puff out enough air every day to blow up a thousand balloons? Who needs a thousand balloons for their birthday? Save a bit of breath to sing 'Happy Birthday', for goodness' sake.

Like a sightseeing tour, we'll take in all the best bits, such as the skin, which is the largest organ in the

human body and the one you'd look the weirdest without. But did you know your skin isn't actually your outermost part? Wherever you go, you're always surrounded by an invisible cloud. 'A cloud! How cute!' Nope. It's a cloud of thousands of tiny bits of skin that flake off you, along with cells that come out of your various giblets every time you speak, yawn, burp or fart. And, if you think that's disgusting, wait until I tell you about the weird creatures who live in your eyelashes. Or, worse still, what they eat for dinner.

How do you know I'm not making this all up? Well, I worked as a doctor for years and years. These days I write books, but hopefully I haven't forgotten *too* much about how the body works. It would be a real shame if I was teaching you a load of absolute nonsense, but I guess you won't know until you fail your exams. So you're probably just going to have to trust me . . .

In this book I'm going to answer every question you could possibly have about the human body, including the things your teachers and parents quickly change the subject about when you ask them. (Probably because they don't know the answers. Idiots.)



You can expect questions like:

WHAT'S THE LARGEST MUSCLE IN THE BODY? No, gluteus maximus isn't a Roman emperor, it's what doctors call your bum, and it's the largest muscle you've got. Doctors have fancy words for every part of the body, by the way. Mostly so we don't have to constantly say things like 'bum'.



ARE BOGEYS SAFE TO EAT? Look, if your nose is going to all that effort of creating a snack, the least we can do is look at its nutritional value, right? (Yes, they're safe. Chew away!)



HOW MUCH OF YOUR LIFE WILL YOU SPEND ON THE TOILET? About a year – so bring a good book. (I recommend this one.)

And there are hundreds more where those ones came from.

I'll also explain how your body can sometimes go on the wonk. Just like a tablet can crash when you update an app, your body is another complicated bit of kit which

malfunctions from time to time. I'll tell you exactly what it means to have conditions that you or your friends might already live with, like epilepsy or diabetes or asthma, as well as the everyday stuff that never seems to get you a day off school. I'm talking colds and bruises, and the dreaded face art that is an attack of the spots. Basically, anything that makes you ask, 'Why on earth is this happening to *me*?'



Speaking of which, we'll have a nosey at some of the changes your body goes through as it prepares you for adulthood. It's not all wearing ties, drinking coffee and

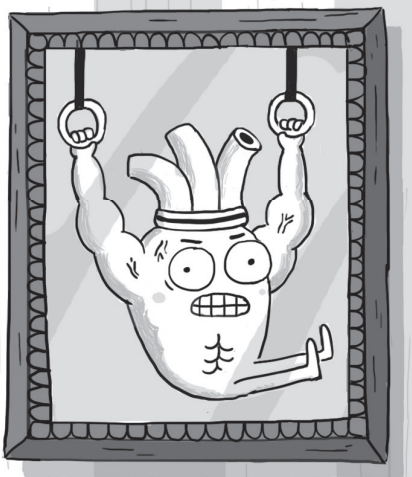
shouting at people, you know. Puberty is a bit like transforming into a totally new person who looks like a squeezed and stretched-out version of you, so I'll explain about all that, and the feelings you might be dealing with too.

We'll take a look at the things your body would probably rather you didn't do, such as smoking, drugs and alcohol, eating unhealthy food, or not getting enough sleep or exercise. No judging, no taking your phone off you for a week; just telling you what's what. Your body belongs to you after all – you can do what you like with it. (Though maybe don't go snowboarding in your underwear.)

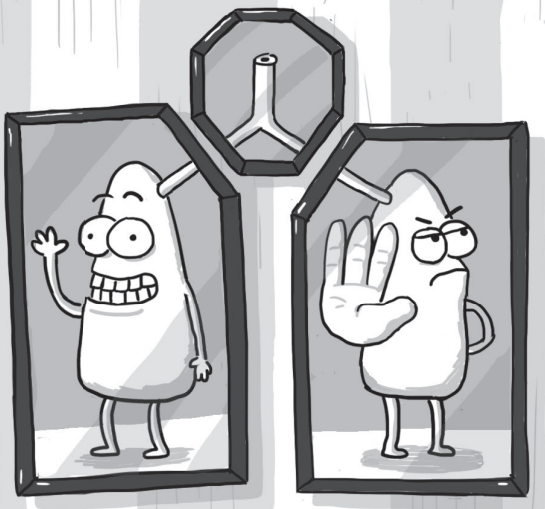
So, if you're ready to learn things that you can't possibly unknow and to be furnished with facts that, while incredible, you probably shouldn't repeat at mealtimes, then this is the book for you. Take a seat, let your creepy cloud of dead skin and poo-dust settle around you, and welcome to . . .

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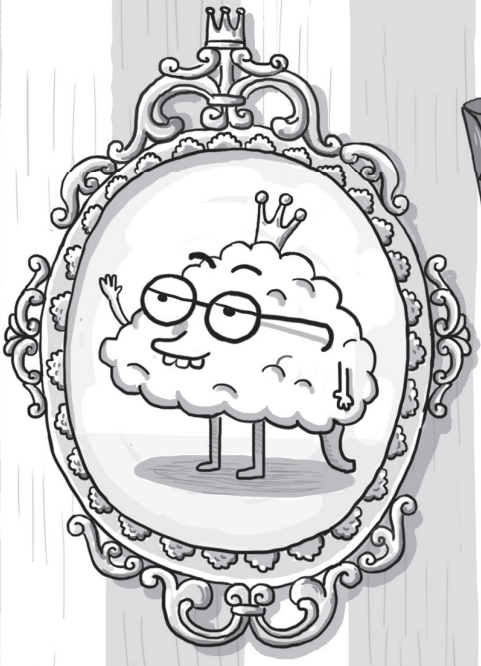
AN ORGAN is a large musical instrument with a couple of keyboards, loads of different pedals and some massive pipes. (An organ can also mean a part of your body that does a specific thing.)



HEART – PUMPS BLOOD



LUNGS – PUMP AIR

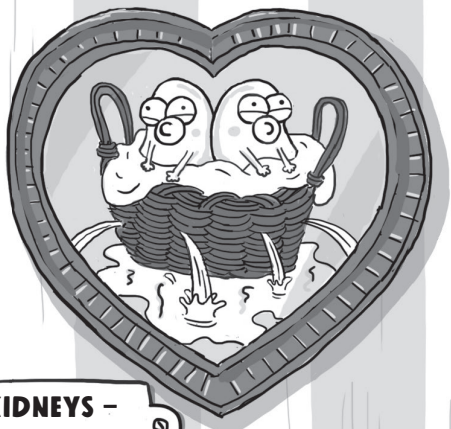


BRAIN – PUMPS NOTHING (BUT IT'S STILL FAIRLY USEFUL)



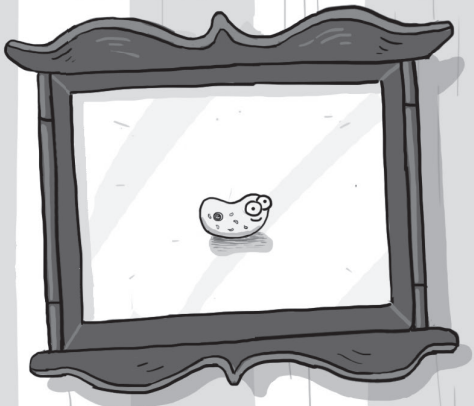
STOMACH – WHERE FOOD GOES

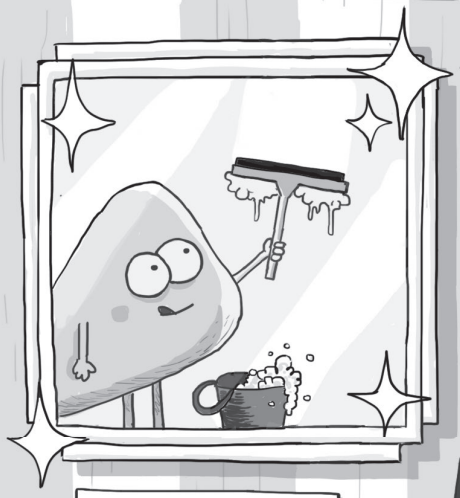




KIDNEYS – MAKE WEE

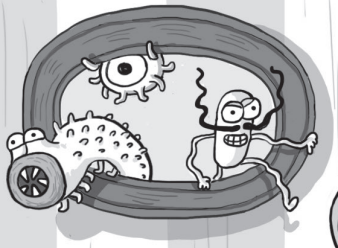
INTESTINES – MAKE POO





CELLS – THE LITTLE LUMPS OF LEGO THAT EVERY ORGAN IS MADE OF

LIVER – CLEANS UP YOUR BLOOD





BACTERIA & VIRUSES – ANNOYING AND INFECTING

PIPPIN – MY DOG. NOT REALLY PART OF THE BODY, BUT CUTE, ISN'T SHE?