

For the grown-ups

The Parent & Teacher Guide

One page per chapter. The idea underneath it, a bit of maths to try, something to talk about, and where to go next if a child wants more.

How to use this

You don't read this cover to cover. Dip into a chapter after your child reads it. Each one keeps the same simple shape.



Try it: Maths

A quick, checkable sum. The same promise the book makes: any ten-year-old can check it with a pencil.



Try it: Talk

A question worth asking out loud. No right answer, that's the point.



Ask an AI

A question you could type into any AI to go a step deeper.



Search for

A search term that reliably lands on something good.



Read

A book worth a look. Most are for you, a couple are for the child.



Watch

Something that lands better seen than read.

The Double-Up Challenge

Almost everyone guesses wrong. Most say hundreds of doublings. It's twenty.

Some people call compound growth the eighth wonder of the world.

Try it · Maths. Do the doubling by hand, page by page, and check exactly which double first passes £1,000,000. (It's the twentieth.) A lovely thing to notice while you're at it: every number in the book is a power of two, and the final £1,048,576 is 2 multiplied by itself twenty times.

Try it · Talk. Ask a few adults in the family to guess first, before they're told the answer. What does it say that most adults get it wrong too?



Watch. Search "rice and chessboard doubling story" for the classic version of this exact idea: a grain of rice doubling on each square of a chessboard, instead of a pound doubling on each page.



Read. *One Grain of Rice* by Demi, or *The King's Chessboard* by David Birch, two beautifully illustrated children's picture books telling that same doubling story.



Ask an AI. "Why do humans find exponential growth so hard to estimate?"

What Is Money?

A pound is only worth something because enough people agree it is. A pound is backed by the UK government. A dollar by the US government. Bitcoin, by nothing but the people who trust it.

Money isn't wealth. It's just something we all agree to trust.

Try it · Maths. Look up today's exchange rate and work out what £10 is worth in dollars, then in euros. Check again in a week, has the answer changed? An exchange rate is really just a live measurement of how much two countries' promises are trusted against each other.

Stretch · Maths. The pound-to-dollar rate has a long, real story. It was fixed at about \$4 just after the Second World War, dropped to \$2.80 in 1950, and has drifted down to roughly \$1.30 today. Plot those points on a timeline and ask the obvious question: why has one pound bought fewer and fewer dollars over a lifetime?

Try it · Talk. Ask what would happen if everyone woke up tomorrow and stopped believing money was worth anything.



Search for. "MeasuringWorth dollar pound exchange rate" for the full year-by-year history, free for educational use.



Ask an AI. "What actually backs the value of the pound, the dollar and Bitcoin, and how do they differ?"



Read. *Sapiens* by Yuval Noah Harari has a famous short section on money as a shared story (for the grown-up, not the child).

Chapter 3

The Acorn

Every fortune starts as an amount too small to take seriously.

Every fortune starts as an amount too small to bother with.

Try it · Maths. Earned minus spent equals saved. Work it out for a real week: pocket money in, spending out, what's left.

Try it · Talk. Start an actual jar, tin or account today. The amount barely matters.

 Search for. "Woodland Trust Tree Tools for Schools", free acorn-to-oak activities.

Chapter 4

Spend or Save?

Nobody's fully a Sid or fully a Sage. Most of us are both, depending on the day.

Everyone's a bit of Sid and a bit of Sage.

Try it · Talk. Ask which one you were this week, and when. Was there a moment you were surprised by your own choice?

 Read. *Predictably Irrational* by Dan Ariely, why nobody's spending habits are as fixed as they think (for the grown-up).

Chapter 5

The Power of Waiting

Sage trains patience with three small games. Which would be hardest for you?

Waiting isn't a personality. It's a muscle.

Try it · Talk. One treat now, or two if they wait quietly for ten minutes. No lecture first. Just watch, then talk about what made waiting hard.



Ask an AI. "What's the marshmallow test, and what does it actually show about delayed gratification in children?"



Read. *The Marshmallow Test* by Walter Mischel, the researcher's own account of fifty years of studies (Stanford's Bing Nursery School has a good free summary online).

Chapter 6

Pay Yourself First

Sid spends first and hopes something's left. Sage saves first and spends what's left over.

Pay yourself first. Spend what's left, not what's left over.

Try it · Maths. Take a real amount (£10, or whatever arrives next) and split it a fifth to saving, four fifths to spending. Work out both amounts.

Try it · Talk. Agree on a split as a family and actually use it next time money arrives, before any spending happens.



Read. *The Richest Man in Babylon* by George S. Clason (1926), the original "pay yourself first" book, a century old and still in print.

Chapter 7

The Treasure Chest

Money meant to grow needs to be kept apart from money meant to be spent. Different goals need different chests.

If it's for growing, it goes in the chest. If it's for spending, it stays out.

Try it · Talk. Name two or three "chests" for different goals with different timelines, holiday, bike, something bigger.



Ask an AI. "What is 'mental accounting', and why does it help people save?"



Read. *Misbehaving* by Richard Thaler, the Nobel-winning economist who named mental accounting (for the grown-up).

Chapter 8

Own a Great Business

Beyond a savings account, you can own a small slice of a business, by buying shares.

You don't just have to spend on a company. You can own a piece of it.

Try it · Maths. Find the share listings in a newspaper (or a free finance site) and pick a company you know. Imagine you'd bought 100 shares. Work out what they'd be worth at three prices: today's, the year's low, and the year's high. Then work out the percentage gain from the low and the percentage loss from the high. Four sums from one company, and every one is checkable.

Try it · Talk. Pick a company your child knows well and talk through what owning a slice of it would actually mean, versus just being a customer.



Search for. "Berkshire Hathaway shareholder letters", decades of free, plain-English writing on owning businesses, from Warren Buffett himself.

Branches Grow Branches

When your money's extra starts earning its own extra, growth speeds up. That's compounding.

Branches grow branches. That's the whole secret.

Try it · Maths. Spotted the book's numbers anywhere else? 64, 128, 256 are the same numbers as phone and games console storage (64GB, 128GB, 256GB). That's not a coincidence, computers count in doublings too, powers of two, the exact chain this book runs on.

Try it · Talk. Work out what £100 of credit card debt at 20% becomes after three years untouched, next to £100 saved at 4%. Talk about which number surprised you more, compounding works both ways.



Search for. "Rule of 72", a quick trick for estimating how fast money, or debt, doubles.



Ask an AI. "Why do computers use powers of two?"

Chapter 10

Grow It Longer

Warren Buffett made almost all his fortune after turning fifty. Time did more than skill.

Time is the one advantage children have that adults can't buy back.

Try it · Maths. Two kinds of growth run through this part of the book. Sage's dog money adds the same £2 every day: 2, 4, 6, 8, 10, a straight line. The game money doubles: 2, 4, 8, 16, 32, a curve. Write both rows out to ten steps, one above the other. They're level for the first two steps, then the curve pulls ahead and never looks back. By step ten the line has reached 20 and the curve has reached 1,024. Same start, wildly different finish.

Try it · Talk. Ask which they'd rather have: a big pile of money today, or a smaller pile and forty extra years for it to grow.



Ask an AI. "How much of Warren Buffett's wealth did he earn after age 50?"



Read. *The Psychology of Money* by Morgan Housel, short essays, one built entirely on that Buffett fact (readable by a keen teenager).

Chapter 11

Grow It Faster

Time isn't the only lever. Sid nearly catches Sage by working harder in less time.

Getting rich quickly is possible. Getting rich slowly is repeatable.

Try it · Maths. Work out Sage's daily rate (£2) against Sid's (£8), and check how many days it actually takes Sid to close a £62 gap. Compare your answer to the book's numbers.

Try it · Talk. Was Sid wrong to spend early on, given how close he got by working harder later?

No further reading on this one. It's better as a conversation than a link.

Chapter 12

The Photo Finish

The race between Sid and Sage, settled with nothing but the numbers already given.

Small differences in speed or time can lead to very big differences in the end.

Try it · Maths. Do the actual sums on the page, day by day, and check the final totals for yourself.

Try it · Talk. Which mattered more in the end, Sage's head start or Sid's harder work at the finish?

No further reading. This chapter is the payoff for the race, not a new idea.

Chapter 13

Don't Lose Money

A 50% loss needs a 100% gain just to break even.

Big setbacks take big comebacks. Avoid the setbacks.

Try it · Maths. Work out what percentage gain is needed to recover from a 50% loss. (It's 100%, and this surprises most adults too.)

Stretch · Maths. Now try a 99% loss. If £100 falls to just £1, what percentage gain gets you back to £100? Here's the trick: work out how many times bigger £100 is than what you've got left. £100 is 100 times £1, so you need to grow it 100 times over, which is a gain of 9,900%. The deeper the hole, the far harder the climb out.

Try it · Talk. If you had £4,096, how much would you be comfortable risking?



Search for. "Buffett rule number one never lose money".

Chapter 14

When Money Shrinks

Money can stay the same number and still lose power, because prices rise. That's inflation.

If your money isn't growing, it's shrinking, because of inflation.

Try it · Maths. Use the Bank of England's inflation calculator to check what a price from twenty years ago is worth today.

Try it · Talk. Ask what's gotten more expensive in your own memory, and how it felt to notice.



Search for. "Bank of England inflation calculator", free, official, and genuinely fun to play with.

Chapter 15

The Chocolate Frog

A cheap treat that keeps getting more expensive, not because it changed, but because money did.

The frog didn't get magical. The pound got smaller.

Try it · Maths. Look up the real price history of something you remember being cheaper, and work out the percentage change.

Try it · Talk. Prices rise, but so do wages, and pocket money. Ask a grown-up what they earned in their first job, and what the same job pays now. Different things rise at different speeds, some faster than prices, some slower. Which would you rather have rising fastest: your money, or the price of the things you want?



Search for. "How much has a Freddo cost over the years", a well-documented, very British inflation example.

The Money Machine

A machine that pays you daily (like Sid's dog round) versus money that grows on its own. Both matter, but differently.

You are the money machine!

Try it · Maths. Two machines run all year. One pays £100 a day, the other pays £110 a day. How much more does the second machine hand you after a full year? (Work out both yearly totals, then find the gap. A small daily difference adds up to more than you'd think.)

Try it · Talk. How could you build a money machine of your own? Sid walked dogs. What could you do, a skill, a job, a small business, that keeps paying you for the effort you put in?



Ask an AI. "What's the difference between active income and passive income?"

The Temptation Test

The bigger the money, the louder the pull to spend it. Sid fails again.

The world is built to make spending easy. That's not a weakness. That's the design.

Try it · Talk. Spot one advert or app notification this week and talk about what it's actually trying to get you to do.



Ask an AI. "What techniques do adverts and apps use to make people want to spend money?"



Search for. "Quitter's Day Strava", real data on how many people give in partway through, rather than at the very start.



Read. *Influence* by Robert Cialdini, the classic book on how persuasion actually works (for the grown-up).

When It Gets Big

"The first £100,000 is the hardest" because past that point, the money starts doing more work than you can.

Eventually, the money works harder than you do.

Try it · Maths. Look up the net worth of the world's richest person right now (Forbes' Real-Time Billionaires list, it changes weekly). Work out 5% of it as a yearly figure, then divide by 365 for a daily figure, as if it all sat in an ordinary savings account.

Try it · Talk. Ask why the real number is almost certainly higher than that 5%, given most of that fortune isn't sitting in a savings account at all. Then ask what "enough" would actually look like for your family.

 Search for. "Forbes Real-Time Billionaires".

 Read. *Enough* by John Bogle, a short, thoughtful book on exactly that last question.

Chapter 19

When Money Goes Wrong

What matters isn't whose fault it was. It's what you do next.

It's not "whose fault was it." It's "what's my next good choice."

Try it · Maths. Pick one of Sid's three spends in the book (the comics, the console). If he'd left that money alone instead, work out what it would have grown to by chapter 21.

Try it · Talk. Hold an apple a couple of feet above a desk. Drop it. Ask why it fell: gravity, or because you let go? Both are true. Only one was your choice.



Ask an AI. "What is locus of control, and how does it relate to happiness?"



Read. Julian Rotter's 1966 locus of control research, the original science behind the apple, still taught today.

Chapter 20

Everything Compounds

Money was never really the point. Practice compounds. Trust compounds. Skill compounds too.

The pound was just the easiest way to watch it happen.

Try it · Talk. What can you do today that you couldn't five years ago? Reading, riding a bike, a sport, an instrument? Now the bigger one: what would you like to be able to do in ten years' time? Those skills compound exactly like the pound did.

No further reading. This chapter draws together what's already been said.

Chapter 21

The Million Pound Page

Twenty doubles, and the pound is a million. The book ends by looking forward, not back: your story carries on from here.

You made it to a million. Now the real question: what will you grow next?

Try it · Maths. One last choice, and it's the whole book in a single question. Would you rather have £1,048,576 handed to you today, or a single penny that doubles every day for a month? Work the penny out, day by day, before you answer. By day 31 it has quietly beaten the million. Same trick as page one, one more time.

Try it · Talk. Back in chapter 2 we asked what money is actually for. So here's the big one, now you've reached it: what would you use a million pounds for? Not to spend on stuff, but to grow. A skill, a business, a cause, the people around you?

For teachers

Curriculum links

A quick map for justifying time spent, against a Maths strand and a PSE / Financial Education strand. This maps by topic and names the right framework for each nation (England's National Curriculum and PSHE Association programme; Scotland's Curriculum for Excellence and Financial Education Guidance). It doesn't quote exact benchmark codes, since a wrong code is worse than none. Worth a proper pass with a teacher's eyes before any formal submission.

Ch	Title	Maths link	PSE / Financial Education link
1	The Double-Up Challenge	Doubling, powers of two, estimation	Recognising gaps in everyday financial understanding
2	What Is Money?	Exchange rates; converting between currencies	The nature and function of money; needs and wants
3	The Acorn	Simple subtraction (earned minus spent)	Saving as a habit; where money comes from
4	Spend or Save?	N/A (conceptual)	Attitudes to spending and saving
5	The Power of Waiting	N/A (conceptual)	Delayed gratification; wants versus needs

Ch	Title	Maths link	PSE / Financial Education link
6	Pay Yourself First	Simple fractions and ratio	Budgeting; prioritising saving
7	The Treasure Chest	N/A (conceptual)	Saving for a purpose; short vs long-term goals
8	Own a Great Business	Reading real share data; percentage gain and loss	Enterprise; owning a share of something
9	Branches Grow Branches	Powers of two, in money and in computing	Savings and debt both compounding
10	Grow It Longer	Linear versus exponential growth, side by side	Value of starting early
11	Grow It Faster	Rate and comparison	Risk and effort in financial outcomes
12	The Photo Finish	Applied addition, checking a calculation	Evaluating outcomes fairly
13	Don't Lose Money	Percentages (loss vs recovery gain)	Risk management
14	When Money Shrinks	Percentages over time	Introduction to inflation
15	The Chocolate Frog	Percentages, real calculator use	Inflation, real personal context
16	The Money Machine	Rate calculations with new numbers	Active vs passive income
17	The Temptation Test	N/A (conceptual)	Recognising marketing's influence
18	When It Gets Big	Percentages of very large numbers	Effort vs reward as wealth grows
19	When Money Goes Wrong	Opportunity cost of a real spend	Resilience; responding to setbacks
20	Everything Compounds	N/A (synthesis)	Applying financial ideas to non-financial goals
21	The Million Pound Page	Reviewing a full worked calculation	Goal-setting, seeing a challenge through

#TheDoubleUpChallenge #HowManyDoubles #TeamSid vs #TeamSage

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