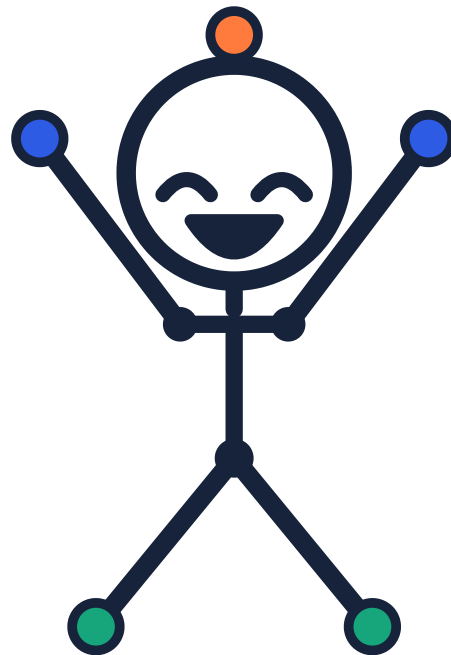




The Choosing Year

36 weekly assignments. Two things, one coin,
and what it costs you to pick.



This book belongs to

My goal this year

What it costs

Teacher

School year

Free to print, copy and use. No license, no account, no cost to any student or school.

You cannot have both.

Two pages a week, front and back. About thirty-five minutes.

The shape of a week

Page 1 teaches one idea and gives you something to do with it. **Page 2** is practice, a question for home, and a harder challenge. No computer needed.

Weeks 1 to 12 are about choosing: there is enough for one of two things, and picking one means not having the other. Weeks 13 to 24 are about where money goes, written down as it happens. Weeks 25 to 36 are about where it comes from, and what a thing costs in hours rather than dollars.

The boxes on the page

IN CLASS

The Grade 3 standard your class is most likely on that week. This book sits beside your math lesson, not against it.

MONEY WARM-UP

Two minutes of arithmetic with money in it. Adding, taking away and sharing out, which is what 3.NBT and 3.OA are for.

WORDS TO KEEP

One or two words pinned down properly. Adults use these loosely; you will not have to.

MONEY BOOK

The one thing you build all year. 19 entries by week 36, every one of them about your own money.

FROM YOUR BOOK

Which earlier pages this week needs. Week 34 is impossible without weeks 24 and 33.

TALK ABOUT IT

Two questions for someone at home. Five minutes, and the part that makes the week stick.

STUCK? TRY THIS

A way in when the page stops making sense.

CHALLENGE ZONE

Harder, and usually open. For whoever finishes early.

Two things this book does not do

Nothing is sold. There is no product, no customer and no market day. That is Grade 4. This year is about the money a student already has and what it costs them to choose.

Nobody is asked what anything costs at their house. Weeks 20 and 21 are about what a home pays for, as a list, and they never ask for an amount. A child should be able to do both weeks without saying anything about their family.

Weeks 31 and 32 are about borrowing at one level only: you get it now and you owe it. There is no interest, no rate and no card in this book.

WEEK	TITLE	STRAND	WHAT IT SITS BESIDE IN CLASS
TRIMESTER 1 · WEEKS 1–12 · YOU CANNOT HAVE BOTH			
1	Two Things, One Coin	Choices	Adding and subtracting within 1000 (3.NBT.2)
2	What You Gave Up	Choices	Two-step word problems (3.OA.8)
3	The Cost With No Price	Choices	Two-step word problems (3.OA.8)
4	Enough, Or Not Enough?	Counting	Adding and subtracting within 1000 (3.NBT.2)
5	Change, Counted Back	Counting	Adding and subtracting within 1000 (3.NBT.2)
6	Adding Up a Basket	Counting	Adding and subtracting within 1000 (3.NBT.2)
7	Roughly, Before Exactly	Counting	Rounding to the nearest 10 or 100 (3.NBT.1)
8	Somebody Chose That Number	Price	Adding and subtracting within 1000 (3.NBT.2)
9	The Same Thing, Two Prices	Price	Adding and subtracting within 1000 (3.NBT.2)
10	The Bigger Box	Price	Multiply and divide within 100 (3.OA.7)
11	Three Things, Two Coins	Choices	Two-step word problems (3.OA.8)
12	The Money Detective	Review	Review and reasoning
TRIMESTER 2 · WEEKS 13–24 · WHERE IT GOES			
13	Write It Down	Keeping Track	Adding and subtracting within 1000 (3.NBT.2)
14	In and Out	Keeping Track	Adding and subtracting within 1000 (3.NBT.2)
15	The Week in a Picture	Keeping Track	Picture graphs and bar graphs (3.MD.3)
16	Reading It Back	Keeping Track	Picture graphs and bar graphs (3.MD.3)
17	Saving Takes Weeks	Saving	Multiplication and division word problems (3.OA.3)
18	A Little Every Time	Saving	Multiplication and division word problems (3.OA.3)

WEEK	TITLE	STRAND	WHAT IT SITS BESIDE IN CLASS
19	The Cost of Waiting	Saving	Two-step word problems (3.OA.8)
20	What a Home Pays For	Household	Reasoning and sorting (no new arithmetic this week)
21	Some Come Every Month	Household	Multiply by multiples of 10 (3.NBT.3)
22	A Share of What You Have	Giving	Understanding fractions (3.NF.1)
23	Different Shares	Giving	Comparing fractions of the same whole (3.NF.3d)
24	Spend, Save, Give	Review	Review and reasoning
TRIMESTER 3 · WEEKS 25–36 · MONEY AND TIME			
25	Where Money Comes From	Earning	Multiplication and division word problems (3.OA.3)
26	Paid By the Hour	Earning	Multiplication and division word problems (3.OA.3)
27	Paid For the Job	Earning	Multiplication and division word problems (3.OA.3)
28	How Long to Earn It?	Time	Division as equal groups (3.OA.2)
29	Time Costs Money Too	Time	Time intervals in minutes (3.MD.1)
30	The Long Wait	Choices	Multiplication and division word problems (3.OA.3)
31	Borrow It or Wait?	Choices	Two-step word problems (3.OA.8)
32	Paying It Back	Choices	Adding and subtracting within 1000 (3.NBT.2)
33	A Whole Month	Keeping Track	Multiplication and division word problems (3.OA.3)
34	Did the Plan Hold?	Keeping Track	Two-step word problems (3.OA.8)
35	Your Money Book, Finished	Review	Review and reasoning
36	What It Cost You	Review	Review and reasoning

Two Things, One Coin

There is enough for one of them. That is not a problem to be solved. It is the whole subject.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

You have \$5. A book costs \$4. Can you buy it? _____

WORDS TO KEEP

enough

When you have as much as the thing costs. Not more, not less.

choose

Pick one when you cannot have both.

a book

\$4

a game

\$3

you have

\$5

You have five dollars and they cost seven

The book is \$4. The game is \$3. Together that is **\$7**, and you have \$5.

You can have either one. You cannot have both. Nobody made a mistake and nothing has gone wrong: this is what money is like, for everybody, always. A grown-up standing in a shop is doing exactly this, with bigger numbers.

The interesting part is not which one you pick. It is that picking one means not having the other, and this year is about getting good at that.

Can you have both?

	First thing	Second thing	You have	Both?
a	\$4	\$3	\$5	no
b	\$2	\$2	\$5	
c	\$6	\$1	\$6	
d	\$5	\$5	\$9	
e	\$3	\$4	\$7	

In one row you can have both and still have money left. Which one, and how much is left?

► ADD TO YOUR MONEY BOOK

Start your Money Book with this page: what you had, what you picked, and what you did not.

TALK ABOUT IT

You picked one. Say out loud what you did not pick.

Is there anything you could have that would not mean giving something up?

**STUCK? TRY THIS**

Add the two prices first. Then compare that total with what you have.

★ CHALLENGE ZONE

You have \$5 and three things cost \$2, \$2 and \$2. How many can you buy? Now the same three things cost \$2, \$3 and \$1. How many now?

What You Gave Up

The other thing has a name and a box on this page. It is a cost even though nobody charged you.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP · 2 MINUTES

You had \$5 and spent \$4. What is left? _____

WORDS TO KEEP

what you gave up The other thing you could have had. It is a real cost even though nobody charged you for it.

what you got

the book, \$4

what it cost you

the game, \$3

Two boxes, not one

You bought the book. It is easy to stop there and say the book cost \$4.

It cost you \$4 **and the game**. The game is gone, not because somebody took it but because you chose. That second box is the one nobody draws, and it is the one that explains why choosing is hard.

Write both boxes every time this year. A cost with no box does not get written down, and a cost that does not get written down gets forgotten.

Fill in both boxes

You had	You bought	It cost	What you gave up
\$5	the book	\$4	the game
\$10	a shirt, \$7		
\$6	lunch out, \$6		
\$20	a ticket, \$12		

In the last column, write something real that the money could have been instead. Not *anything*. One thing.

► ADD TO YOUR MONEY BOOK

Add a page headed What It Cost Me, with two boxes. You will fill it in again in week 36.

TALK ABOUT IT

Somebody says the book cost four dollars. Is that the whole answer?

Name something you chose this week and say what you gave up for it.

**STUCK? TRY THIS**

First write what you paid. Then ask yourself what that same money could have been.

★ CHALLENGE ZONE

You gave up the game to buy the book. Next week the game is on sale for \$1. Was your choice wrong? Say why or why not.

The Cost With No Price

Some things cost you time, or waiting, or effort. None of those has a label on it.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP · 2 MINUTES

A walk takes 20 minutes each way. How long altogether? _____

WORDS TO KEEP

cost

Anything a choice takes from you. Money, or time, or waiting.

Three kinds of cost

The shop near you sells it for \$6. The shop across town sells it for \$4, and the walk is forty minutes there and back.

You save **\$2** and you spend **40 minutes**. Whether that is a good trade depends on what else you would have done with forty minutes, and nobody can answer that for you.

Money is the easiest cost to see because somebody wrote it on a label. Time and waiting and effort are costs too, and this page is the first place in the year where they get a table of their own.

The choice	Costs money	Costs time	Costs waiting
Walk to the cheaper shop	saves \$2	40 minutes	none
Wait for it to go on sale			
Make it yourself			
Buy it here, right now			

More to try

1. Which of the four costs the most money?
 2. Which costs the most time?
 3. Is the cheapest one the best one? Say what it depends on.
 4. Write one thing you did this week that cost you time and no money.
-

 TALK ABOUT IT

Somebody says something was free. What could it still have cost them?

When is forty minutes worth two dollars? When is it not?

**STUCK? TRY THIS**

Take the choices one at a time and ask three questions about each: did it cost money, did it cost time, did it cost waiting.

★ CHALLENGE ZONE

The cheaper shop is \$2 less and the walk is 40 minutes there and back. How much would it have to save before you would walk an hour?

Enough, Or Not Enough?

Working it out before you get to the counter, which is the only useful time to know.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

You have \$12. It costs \$9. Enough? _____

WORDS TO KEEP

afford

To have enough for it. You can want something and not afford it.



Compare, do not guess

Enough means what you have is the same as the price or more than it. That is it.

The awkward cases are the close ones. \$12 against \$9 is easy. \$12 against \$12 is enough, exactly, with nothing left. \$12 against \$13 is not enough by one dollar, and one dollar short is just as short as ten.

The coins above are four one-dollar coins: \$4. That is enough for a \$4 book, exactly, and not enough for a \$5 one.

Short is short

Being one dollar short and being fifty dollars short feel completely different and are exactly the same at the counter: you cannot buy it.

What is different is what you do next. One dollar is worth solving. Fifty is a different plan, and knowing which one you are in is the reason to work it out before you go rather than at the register.

Enough, or how much short?

	You have	It costs	Enough?	Left over, or short by
a	\$12	\$9	yes	\$3 left
b	\$12	\$12		
c	\$12	\$13		
d	\$40	\$28		
e	\$105	\$120		
f	\$250	\$85		

One row lets you buy it and leaves you no money. Two rows leave you your money and no thing. Which are they, and what is the difference?

► ADD TO YOUR MONEY BOOK

Add a page headed Before I Buy, with the two questions: what does it cost, and what do I have.

TALK ABOUT IT

Being one dollar short and being fifty dollars short both mean you cannot buy it. Are they the same problem?

What could you do about being short by one dollar?

**STUCK? TRY THIS**

Line the numbers up so the ones are under the ones. Then subtract the smaller from the bigger and say which way round it was.

★ CHALLENGE ZONE

You are \$15 short. You get \$4 a week. How many weeks? Now you are \$15 short and the price goes up \$1 every week. What happens?

Change, Counted Back

What comes back, and checking it before you walk away.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

You pay \$20 for something that costs \$14. What comes back? _____

WORDS TO KEEP

change

The money that comes back when you paid more than the price.

RECEIPT	
What it costs	\$14
You hand over	\$20
Change	\$6

Two ways to get the same answer

It costs \$14 and you hand over \$20.

Take away. $\$20 - \$14 = \$6$.

Count up. From \$14 to \$15 is one, from \$15 to \$20 is five, so six altogether. This is the way a shopkeeper counts it back to you, out loud, and it is the way you can check without a pencil.

Both give \$6. Knowing both means you can check the first with the second, which is the whole reason to learn two.

Work out the change both ways

	Price	You paid	Change	Counted up
a	\$14	\$20	\$6	14, 15, 20
b	\$7	\$10		
c	\$32	\$50		
d	\$46	\$60		
e	\$88	\$100		

You get \$5 back and you expected \$6. What do you do?

TALK ABOUT IT

Why would a shopkeeper count it back out loud rather than just handing it over?

You are given too much change. What is the right thing to do, and what is the easy thing?

**STUCK? TRY THIS**

Counting up: get to the next round number first, then jump in tens and fives to what you handed over.

★ CHALLENGE ZONE

You paid with \$50 and got \$18 back. What did it cost? Work it out without subtracting, by counting up from the answer.

Adding Up a Basket

A total, built one item at a time, and checked before anybody rings it up.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

\$3 and \$4 and \$5. What do they come to? _____

WORDS TO KEEP

total

Everything added together. Written once, at the bottom.

Running total, not a pile

Add as you put things in, not all at once at the end.

\$3 in, running total \$3. \$4 in, running total \$7. \$5 in, running total \$12. If you have \$10, you knew you were in trouble the moment the third item went in, not at the counter.

A pile you add up at the end tells you the answer too late to do anything about it.

Item	Price	Running total
Notebook	\$3	\$3
Pens	\$4	\$7
Folder	\$5	
Something you choose		
Something you choose		

More to try

1. You have \$10. At which item did the basket go over?
2. Take one item out so it fits. Which one, and why that one?
3. Now do it with \$15. Does anything have to come out?
4. Add two things of your own and give the new total.

► ADD TO YOUR MONEY BOOK

Add a Basket page with three columns: item, price, running total. Use it the next time you shop with somebody.

💬 TALK ABOUT IT

Adding at the end and adding as you go give the same number. Why is one more useful? Look at the basket on page 1. Which item would you take out first, and why that one?

**STUCK? TRY THIS**

Write the running total in the last column every time, even when it is easy. The habit is the point.

★ CHALLENGE ZONE

Four items: \$6, \$2, \$7, \$3. You have \$15. Which one comes out? Is there more than one right answer?

Roughly, Before Exactly

A number you can hold in your head, worked out fast, and checked properly later.

IN CLASS THIS WEEK

Rounding to the nearest 10 or 100 (3.NBT.1)

MONEY WARM-UP • 2 MINUTES

Round \$38 to the nearest ten. _____

WORDS TO KEEP

about

Close enough to be useful. A rough number you can check later.

round

Move a number to the nearest ten or hundred so it is easier to hold.

About a hundred and ten dollars

\$38 and \$41 and \$29 come to about **\$110**, and you knew that before you finished reading them.

Round each one to the nearest ten: 40, 40, 30. A hundred and ten. The exact answer is \$108, so your rough answer was off by \$2 and it took a second.

Rough first tells you whether to bother being exact. If you have \$200 and the basket is about \$110, stop working. If you have \$110 and the basket is about \$110, now do it properly.

Basket	Roughly	Exactly	Off by
\$38, \$41, \$29	\$110	\$108	\$2
\$61, \$24, \$53			
\$19, \$22, \$38			
\$47, \$51, \$9			

More to try

Round every price to the nearest ten, then add.

1. Which of the four roughs was closest to the exact answer?
2. Which was furthest off? Say why that one.
3. You have \$100 and the basket is roughly \$60. Do you need the exact number? Say why.
4. You have \$100 and the basket is roughly \$100. Now do you?

 TALK ABOUT IT

When is a rough number good enough? When is it dangerous?

Round a price you see this week to the nearest ten and then check it. How far off were you?

**STUCK? TRY THIS**

Round each price on its own first, then add the rounded ones. Do not round the total.

★ CHALLENGE ZONE

Round every price up instead of to the nearest. Is your total now too big or too small? When would you want to do it that way?

Somebody Chose That Number

A price is not a fact about the thing. It is a decision, and a person made it.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

A price goes from \$8 to \$6. By how much did it drop? _____

WORDS TO KEEP

price

The number somebody chose. It could have been a different number.

last month

\$8

this month

\$6

what could explain the gap?

It could have been a different number

The same thing was \$8 and now it is \$6. It did not change. The number did.

Somebody chose \$8, and then somebody chose \$6. Prices go up and down because people decide things: they have too many, or not enough, or somebody else nearby is cheaper.

That matters to you because a price you think is fixed is a price you never question.

Once you know a person chose it, you can ask whether it is worth it to you, which is a different question from whether it is correct.

Up, down, or the same

Thing	Before	Now	Change	Up or down?
Notebook	\$8	\$6	\$2	down
Ticket	\$15	\$18		
Snack	\$3	\$3		
Shoes	\$40	\$25		

Write one reason somebody might have raised the ticket price, and one reason somebody might have dropped the shoes.

 TALK ABOUT IT

If a price can change, what does it tell you about the thing?

Have you seen the price of something change? What did you think at the time?

**STUCK? TRY THIS**

Subtract the smaller from the bigger to get the change, then say which direction it went.

★ CHALLENGE ZONE

A price drops from \$40 to \$25 and then goes back to \$40. Was it ever really worth \$40?

The Same Thing, Two Prices

Two shops, one thing, a gap between them, and something that explains it.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP • 2 MINUTES

One is \$12 and one is \$15. What is the gap? _____

WORDS TO KEEP

compare

Put two next to each other and say which is which.

shop A

\$12

shop B

\$15

what could explain the gap?

The gap always has a reason

Three dollars between them, for the same thing. Somebody is paying for something.

Maybe shop B is closer, and you are paying for not walking. Maybe it is open later. Maybe shop A had a lot of them and wanted them gone. Maybe shop B is just more expensive and people go anyway.

You will not always find the reason. Looking for one is still worth it, because sometimes the reason is that you were not paying attention.

Find the gap, then a reason

Thing	Shop A	Shop B	Gap	A reason for the gap
Notebook	\$12	\$15	\$3	B is closer to school
Ball	\$8	\$8		
Bag	\$24	\$19		
Drink	\$2	\$4		

One row has no gap at all. Does that mean the two shops are the same? Say what else could be different.

► ADD TO YOUR MONEY BOOK

Add a Two Prices page. Every time you see the same thing twice, write both prices and the date.

TALK ABOUT IT

Is the cheaper one always the better one? Say what it depends on.

Find the same thing in two places this week and write both prices down.

**STUCK? TRY THIS**

Subtract the smaller price from the bigger one. Then think about what the extra money bought.

★ CHALLENGE ZONE

The drink is \$2 at one shop and \$4 at another, and the \$4 one sells more of them. Give two things that could explain it.

The Bigger Box

Four for eight dollars, or one for three. Work it out rather than assuming.

IN CLASS THIS WEEK

Multiply and divide within 100 (3.OA.7)

MONEY WARM-UP · 2 MINUTES

Four for \$8. What is one? _____

WORDS TO KEEP

each

The price for one, worked out from the price for several.

the big box

\$8 for 4

the single

\$3 for 1

which is cheaper for one?

Divide, then compare

\$8 for four is **\$2 each**. One on its own is \$3. The big box is cheaper per one.

Usually. Not always, and that is why you divide instead of assuming. Shops know that people believe the bigger box is cheaper, and sometimes it is not.

The other half of the question is whether you want four. A cheaper price for each is not a saving if you only needed one and the other three go to waste.

Cheaper each is not the same as cheaper

The big box costs more money and less per one. Both are true and they answer different questions.

If you needed four, the big box saved you four dollars. If you needed one, it cost you five extra dollars and gave you three you did not want. Work out which question you are actually asking before you divide anything.

Which is cheaper for one?

	Big box	Each	Single	Cheaper each
a	4 for \$8	\$2	\$3	big box
b	5 for \$20		\$3	
c	6 for \$12		\$2	
d	3 for \$9		\$4	

In two rows the big box is not cheaper each. Find them, and say what a shop might be hoping you do.

TALK ABOUT IT

The big box is cheaper each and you only want one. Is it a saving?

Next time you are in a shop, find a big box and a single of the same thing. Work out both.

**STUCK? TRY THIS**

Divide the box price by how many are in it. That is the price of one, and it is the only number you can compare.

★ CHALLENGE ZONE

A box of 6 is \$12 and a box of 10 is \$30. Which is cheaper each? Now which would you actually buy, and why?

Three Things, Two Coins

Now it is hard. There is no arrangement that gets you everything, and picking is the work.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP · 2 MINUTES

You have \$10. Things cost \$6, \$5 and \$4. Can you have all three? _____

WORDS TO KEEP

plan

What you decided before you got there. Writing it down is the plan.

Everything costs fifteen and you have ten

\$6 and \$5 and \$4 is **\$15**. You have \$10. Something is not coming home with you.

Two of them fit, and which two depends on the pair: 6 and 4 is \$10 exactly, 5 and 4 is \$9 with a dollar left, 6 and 5 is \$11 and does not fit at all.

So the question is not what do I want. It is which pair, and what is the one I am giving up. Week 2 gave that a box and this is where you need it.

Pair	Adds to	Fits in \$10?	What you gave up
\$6 and \$5	\$11	no	
\$6 and \$4			
\$5 and \$4			

More to try

1. Which pair leaves the most money?
 2. Which pair uses it exactly?
 3. Is the pair that leaves money always the best one? Say why not.
 4. Now you have \$12. Does that change your answer? Does it change the arithmetic?
- Write down the one you chose and the one you gave up.
-

► ADD TO YOUR MONEY BOOK

Add a page headed The One I Gave Up. One line each time it happens for real, not just on this page.

💬 TALK ABOUT IT

Somebody with more money still has to choose. What changes and what does not?
Name a time you had to leave something behind. What decided it?

**STUCK? TRY THIS**

Try each pair on its own. There are only three pairs, so writing all three out is faster than being clever.

★ CHALLENGE ZONE

Four things at \$6, \$5, \$4 and \$3, and you have \$10. How many pairs fit? Is there a set of three that fits?

The Money Detective

Eleven weeks of tools, one afternoon of shopping, and nobody saying which tool.

IN CLASS THIS WEEK

Review and reasoning

MONEY WARM-UP • 2 MINUTES

You have \$20 and spend \$13. What is left? _____

Saturday, twenty dollars

Here is everything you know. Answer with the right tool and say which week it came from.

Thing	Shop A	Shop B
Notebook	\$4	\$5
Pens, box of 4	\$8	\$6
Snack	\$3	\$3
Comic	\$7	\$7

Which tool for which question

Six questions, eleven weeks. If a question asks whether you can afford it, that is week 4. If it asks what comes back, week 5. If it asks roughly, week 7. If it asks which shop, week 9 or week 10.

Write the week number beside each of your answers. A right answer with no method behind it does not survive week 24, when the money is yours.

Six questions

1. Roughly, to the nearest ten dollars, what would all four cost at shop A?
2. Exactly, what would all four cost at shop A?
3. Which shop is cheaper for the box of pens, and by how much?
4. You buy the notebook and the comic at shop A. What change from \$20?
5. You have \$10 and want the notebook, pens and snack at shop B. Can you? What do you give up?
6. The comic is \$7 at both. Does that mean the shops are the same?

► ADD TO YOUR MONEY BOOK

File your six answers with the week number beside each one. Week 36 asks you to do this again.

TALK ABOUT IT

Which question here needed the most steps? Which needed the fewest?
One thing costs the same in both shops. Is that a coincidence?

**STUCK? TRY THIS**

Every question is one of the eleven weeks. If you are stuck, work out which week it came from and turn back to that page.

★ CHALLENGE ZONE

Plan a \$20 afternoon at whichever shop you like, buying at least three things. Write what you bought, what it came to, and what you gave up.

Write It Down

A minute a day, and you never have to wonder where it went again.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP • 2 MINUTES

In \$5, out \$2. What is left? _____

WORDS TO KEEP

ledger

A list of money in and money out, written down as it happens.

What happened	In	Out	Left
Started with			\$10
Allowance	\$5		
Snack		\$2	
Bus		\$3	

Memory is not a ledger

Try to say where every dollar of yours went last week. It is harder than it sounds, and that is not carelessness. Memory is not built for it.

A **ledger** is four columns: what happened, money in, money out, and what is left. The last column is the one people leave blank, and it is the only one that answers a question.

Write it down as it happens. A ledger filled in on Sunday from memory is a guess with lines around it.

Finish the ledger

Started with \$10. Fill in the Left column all the way down.

What happened	In	Out	Left
Started with			\$10
Allowance	\$5		
Snack		\$2	
Bus		\$3	
Found a dollar	\$1		
Comic		\$4	

What is left at the end? Now add all the ins and take away all the outs and check you get the same number.

► ADD TO YOUR MONEY BOOK

Start a Ledger page and keep it for the rest of the year. Week 33 uses a whole month of it.

💬 TALK ABOUT IT

Two ways to get the last number and they must agree. What does it mean if they do not?
Without looking at your ledger, try to list everything you spent last week. Then check. What did you forget?

**STUCK? TRY THIS**

Work down one row at a time. Each row's Left is the row above, plus the In, minus the Out.

★ CHALLENGE ZONE

Your ledger ends at \$7 and you count your money and have \$5. Something is missing from the ledger. How would you find it?

In and Out

Every line moves the number at the end. That number is the only one that matters.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

You had \$12, spent \$5, then got \$3. What now? _____

WORDS TO KEEP

balance

What is left after everything in and everything out.

The balance is a running answer

The **balance** is what is left right now. It changes on every line and it is never a guess.

Money in makes it go up. Money out makes it go down. That is the whole rule, and it is worth being able to say because a lot of people quietly believe that money in one place is different from money in another.

Ten dollars saved and ten dollars in your pocket are the same ten dollars until you decide otherwise. The deciding is week 24.

Line	In	Out	Balance
Start			\$12
Spent on lunch		\$5	
Paid for a job	\$3		
Bought a pen		\$2	
Birthday money	\$10		

More to try

1. What is the balance at the end?
2. What was the lowest the balance ever got?
3. Start with \$12. Add all the Ins and take away all the Outs. Does it match the balance at the end?
4. Add a line of your own that takes the balance below \$5.

 TALK ABOUT IT

The balance went down and then up again. Was there a moment when you could not have bought something? Why does that matter?

Why does a bank show you a balance rather than just the ins and outs?

**STUCK? TRY THIS**

Do one line at a time and write the balance every time, even when nothing much changed.

★ CHALLENGE ZONE

Your balance never goes below \$3 all month. Somebody says you are being careful. Somebody else says you are missing out. Who is right?

The Week in a Picture

Five days of your own spending, drawn, so you can see it without adding anything up.

IN CLASS THIS WEEK

Picture graphs and bar graphs (3.MD.3)

MONEY WARM-UP · 2 MINUTES

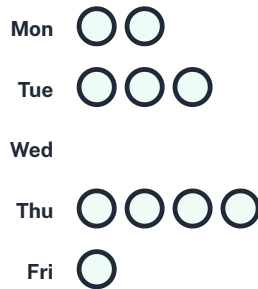
Mon \$2, Tue \$3, Wed \$0. What is the total so far? _____

WORDS TO KEEP

graph

A picture of numbers, so you can see them without counting.

one circle is one dollar



One circle, one dollar

Each circle is one dollar. Five days, drawn, and the shape of the week is visible before you have added anything.

Thursday is the biggest day. In a list you would have to read every number to find that, and in the picture you see it at once. That is the entire reason to draw it.

Fill in your own week on page 2, from your ledger. If you have not been keeping the ledger, this week is the one that shows you why.

Your week

one circle is one dollar

Mon	☐	☐	☐	☐	☐	☐
Tue	☐	☐	☐	☐	☐	☐
Wed	☐	☐	☐	☐	☐	☐
Thu	☐	☐	☐	☐	☐	☐
Fri	☐	☐	☐	☐	☐	☐

Color in one circle for each dollar you spent that day.

In the drawn week on page 1:

1. Which day cost the most?
2. Which day cost nothing?
3. What did the whole week come to?

► ADD TO YOUR MONEY BOOK

Add your week graph to the Money Book. Week 33 puts it beside a whole month of your ledger.

TALK ABOUT IT

Your week and the drawn one have different shapes. Say one thing that is different about them.

A week with one big day and a week that is the same every day can add up to the same total. Are they the same week?

**STUCK? TRY THIS**

Color in one circle for every dollar, left to right, starting next to the day's name. Do not leave gaps.

★ CHALLENGE ZONE

Draw a week that adds to \$10 with one day much bigger than the others. Now draw a different week that also adds to \$10. Which would you rather have?

Reading It Back

Last week's picture, read again, and the questions it can and cannot answer.

IN CLASS THIS WEEK

Picture graphs and bar graphs (3.MD.3)

MONEY WARM-UP · 2 MINUTES

One day is 4 circles and one is 1. What is the difference? _____

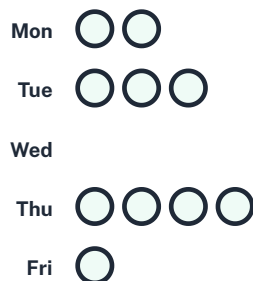
What a graph will not tell you

The picture says Thursday cost \$4. It does not say what it was for, or whether it was worth it.

A graph shows how much. Your ledger shows what on. You need both, and the reason to draw the graph anyway is that it makes you ask the question: why was Thursday four times Friday?

That is what reading a graph means. Not saying what the tallest bar is, which anybody can see, but noticing which thing to go and look up.

one circle is one dollar



Read it, then go and check

1. How much more was Thursday than Friday?
2. How much for the whole week?
3. Two days added to the same amount as Thursday on its own. Which two?
4. Which day would you want to look up in the ledger, and why that one?
5. Write one thing this graph does not tell you.

 TALK ABOUT IT

Somebody looks at your graph and says you spent too much. What would you need to show them to argue back?

Would a graph of a whole month look more or less useful than this one?

**STUCK? TRY THIS**

Count circles rather than reading numbers. The graph has no numbers on it on purpose.

★ CHALLENGE ZONE

Draw the same week again but with each circle worth five dollars. What changes about the picture? What changes about the week?

Saving Takes Weeks

The goal, the amount you can put aside, and the number of weeks between them.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

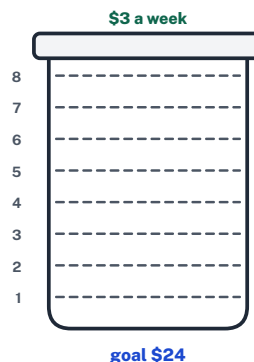
MONEY WARM-UP · 2 MINUTES

\$3 a week for 6 weeks. How much? _____

WORDS TO KEEP

goal

The thing you are saving for, and the amount it needs.



Divide the goal by what you can put in

A \$24 goal, \$3 a week. **Eight weeks.** Not a feeling about how long, a number.

That number is worth having for two reasons. It tells you whether the goal is reachable at all, and it tells you what to change if it is not: either put in more each week, or pick a smaller goal, or wait longer. There is no fourth option.

Skip this division and saving always seems to take longer than it should. Do it, and you know before you start.

How many weeks?

	Goal	Each week	Weeks
a	\$24	\$3	8
b	\$40	\$5	
c	\$18	\$2	
d	\$64	\$4	
e	\$25	\$5	

Row d takes the longest. If you wanted it in half the time, what would you have to change, and by how much?

► ADD TO YOUR MONEY BOOK

Add a Goal page: what it is, what it costs, what you can save each week, and the number of weeks. Date it.

💬 TALK ABOUT IT

Eight weeks is about two months. Does knowing that make you more or less likely to start? What is something you would save eight weeks for? What would you not?

**STUCK? TRY THIS**

Divide the goal by what you put in each week. If it does not divide exactly, round up: a part-week does not buy anything.

★ CHALLENGE ZONE

The goal is \$30 and you save \$4 a week. How many weeks, and how much is left over at the end?

A Little Every Time

The same small amount, again, for longer than seems worth it. That is the whole method.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

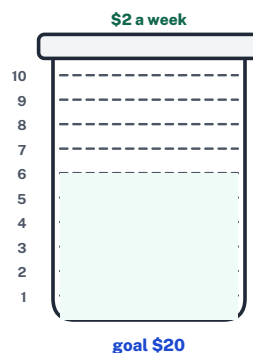
MONEY WARM-UP · 2 MINUTES

\$2 a week for 10 weeks. How much? _____

WORDS TO KEEP

save

Keep some now so there is more later. It works because it repeats.



Small and repeated beats big and once

Two dollars a week is nothing. Two dollars a week for a year is **\$104**.

It is hard to believe until you multiply it. The amount is not what makes saving work; the repeating is. A person who puts in \$20 once and a person who puts in \$2 every week end up a long way apart, and the second one never felt it.

This is the single most useful thing in this book and it takes one multiplication to prove.

What it adds up to

Each week	10 weeks	26 weeks	52 weeks
\$2	\$20	\$52	\$104
\$1			
\$5			
\$10			

One dollar a week for a year. Write the number down and then read it out loud, because it is bigger than it sounds.

TALK ABOUT IT

Which would you rather have: \$50 today, or \$1 a week for two years?

Why is it easier to save \$2 every week than \$104 once?

**STUCK? TRY THIS**

Multiply the weekly amount by the number of weeks. 52 weeks is a year.

★ CHALLENGE ZONE

You save \$2 a week for a year and spend \$30 of it halfway through. How much is left at the end?
How many weeks did that \$30 cost you?

The Cost of Waiting

Saving works and it costs you something, and both of those are true at once.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP • 2 MINUTES

You save \$3 a week. How long until you have \$18? _____

WORDS TO KEEP

wait

The time between deciding and having. Waiting costs something too.

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- Week 17, your goal and the number of weeks

Eight weeks of not having it

You save \$3 a week for eight weeks and get the thing. You also spend eight weeks not having it, and not having whatever else that \$24 could have been on the way.

That is a real cost and it is the one week 2 taught you to write down. It does not mean saving is a bad idea. It means saving is a choice like every other choice in this book, with a thing on the other side of it.

Sometimes the answer is that it is not worth eight weeks. Working that out on purpose is different from giving up.

Waiting is not the same as not having

Eight weeks of saving is eight weeks of not having the thing. It is also eight weeks of getting closer to it, which is a different feeling from eight weeks of nothing happening.

That is why the jar in week 17 has lines on it. Being able to see the level go up makes a long wait easier to keep going with.

Is it worth the wait?

The goal	Cost	Weeks to save	Worth the wait?
A game	\$24	8	
A book	\$9		
A bike	\$120		
Something you want			

Use \$3 a week for all of them. One of these takes so long that you would want to change something. Which, and what would you change?

TALK ABOUT IT

Is a long wait a reason not to start?

What could make the waiting easier? What would make it harder?

**STUCK? TRY THIS**

Divide each cost by \$3. Round up, because a part-week does not buy anything.

★ CHALLENGE ZONE

Two goals at \$3 a week: the \$24 game takes eight weeks and the \$9 book takes three. You can save for one at a time. Which would you do first, and why?

What a Home Pays For

The list, not the numbers. This page never asks what anything costs at your house.

IN CLASS THIS WEEK

Reasoning and sorting (no new arithmetic this week)

MONEY WARM-UP · 2 MINUTES

Name three things a home pays for. _____

WORDS TO KEEP

bill

Money a home has to pay for something it uses.

A home has a long list

Somewhere to live. Power and water. Food. Getting to work and school. A phone. Clothes. Keeping people well. Sometimes a car.

Most of that is invisible to a child, which is normal and not a failure on anybody's part. It is worth knowing it exists, because a family's money is not a pot of spending money with the boring bits taken out first.

This page never asks for an amount and neither will week 21. Nobody has to say what anything costs at their house, ever, and nobody should be asked. The list is the lesson.

What a home pays for	Every month?	Could you go without it?
Somewhere to live	yes	no
Power and water	yes	
Food	yes	
Getting places		
Something you thought of		
Something you thought of		

More to try

1. How many things on your list come every month?
2. How many could a home go without for a while?
3. Which one do you think is the biggest? You are guessing, and that is allowed.
4. Is anything on your list a want rather than a need? Who decides?

 TALK ABOUT IT

Which things on the list did you not know a home paid for?

Which thing on the list would be hardest for a home to go without? Say why.

**STUCK? TRY THIS**

Look around this classroom and ask what somebody is paying for so that it works.

★ CHALLENGE ZONE

Put the list in order from biggest to smallest, as a guess. Then compare your order with a partner's. Where do you disagree, and why? Order only, no numbers.

Some Come Every Month

A bill you can pay once and be done with, and a bill that comes back forever.

IN CLASS THIS WEEK

Multiply by multiples of 10 (3.NBT.3)

MONEY WARM-UP • 2 MINUTES

\$30 a month. How much in 10 months? _____

WORDS TO KEEP

every month

A bill that comes back. You cannot pay it once and be done.

Once against every month

A pair of shoes is a one-off. Somewhere to live is every month, for as long as you live there.

That difference is bigger than it looks. \$30 once is \$30. \$30 every month is **\$360 a year**, and the same \$30 feels the same both times while doing twelve times the damage.

This is why a grown-up thinks harder about a small thing that repeats than a bigger thing that does not, and it is the same idea as week 18 pointed the other way: repeating is powerful, whichever direction it goes.

Cost	Once, or every month?	In a year
\$30 a month	every month	\$360
\$50 once		
\$20 a month		
\$10 a month		
\$200 once		

More to try

1. Which costs more over a year, \$20 a month or \$200 once?
2. Which one feels bigger when you pay it?
3. A home wants to spend less. Should it look at the one-offs or the monthly ones first? Say why.
4. Name one monthly thing that a home could stop, and one it could not.

 TALK ABOUT IT

Something small that comes every month can cost more than something large that comes once. Why is that hard to notice?

Name something that many homes pay for every month. Why does it keep coming back?

**STUCK? TRY THIS**

Multiply the monthly amount by 12. To multiply by 12, multiply by 10 and then add two more of it.

★ CHALLENGE ZONE

A \$5 a month thing runs for three years before anybody cancels it. What did it cost altogether? What could that have been instead?

A Share of What You Have

Giving is the third thing money does, and a share of an amount is a fraction with a job.

IN CLASS THIS WEEK

Understanding fractions (3.NF.1)

MONEY WARM-UP · 2 MINUTES

You have \$12. What is one fourth of it? _____

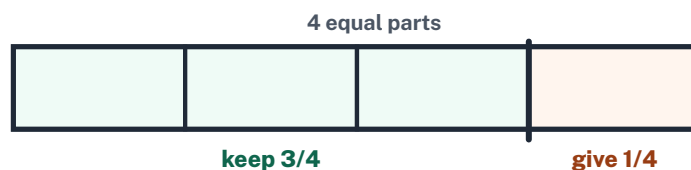
WORDS TO KEEP

share

One part of something split into equal parts.

give

The third thing money does, after spend and save.



A fourth of twelve dollars is three dollars

Split \$12 into four equal parts. Each part is \$3. Keep three parts, give one: keep \$9, give \$3.

In your math book a fourth is a shape cut into four pieces. Here it is an amount cut into four equal amounts, which is the same idea doing a job a shape cannot do. You cannot hand somebody a quarter of a rectangle.

How much to give, or whether to at all, is not this page's business. Being able to work out what a share comes to is.

Work out the share

You have	You give	That is	You keep
\$12	one fourth	\$3	\$9
\$20	one fourth		
\$18	one third		
\$10	one half		
\$24	one sixth		

Two of these give away the same number of dollars from different amounts. Which two, and what does that tell you about the fractions?

► ADD TO YOUR MONEY BOOK

Add a Spend, Save, Give page and write the share you chose. Week 24 puts all three together.

TALK ABOUT IT

Is a bigger share always more money? Say when it is not.

Somebody gives one tenth and somebody gives one half. Who gave more? What else would you need to know?

**STUCK? TRY THIS**

To find one fourth, split into four equal parts and take one. Dividing by four is the same thing written differently.

★ CHALLENGE ZONE

You want to give \$5 and you have \$20. What fraction is that? Now you have \$30 and still want to give \$5. Is it the same fraction?

Different Shares

One half and one third of the same money are different amounts. So are one third of two different amounts.

IN CLASS THIS WEEK

Comparing fractions of the same whole (3.NF.3d)

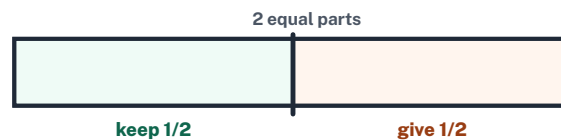
MONEY WARM-UP · 2 MINUTES

Which is more, one half of \$10 or one third of \$12? _____

WORDS TO KEEP

equal parts

Parts that are all the same size. Halves, thirds, fourths.



Two things can change

One half of \$10 is \$5. One third of \$12 is \$4. The bigger fraction won, this time.

But one third of \$30 is \$10, which beats one half of \$10. Both the fraction and the amount matter, and a fraction on its own is not a quantity until you say a fraction **of what**.

That is the thing to carry out of this week, and it is true of every percentage anybody will ever quote you.

A fraction is not a quantity

Half is bigger than a third. Half of \$10 is smaller than a third of \$30. Both sentences are true and only one of them is about money.

Whenever anybody tells you a fraction or a percent, the useful question is four words long: **of what?** You will use that question for the rest of your life and you can start now.

Which is more?

	First	Comes to	Second	Comes to	Bigger
a	half of \$10	\$5	third of \$12	\$4	first
b	third of \$30		half of \$10		
c	fourth of \$20		half of \$8		
d	half of \$6		third of \$9		

One row is a tie. Two different fractions of two different amounts, and the same money. Which row?

TALK ABOUT IT

Somebody says they gave half. Half of what?

Is one half always more than one third? Say exactly when it is not.

**STUCK? TRY THIS**

Work out both amounts in dollars first. Then compare the dollars, not the fractions.

★ CHALLENGE ZONE

Find a fraction of an amount that equals one half of \$20. There is more than one answer. Write three.

Spend, Save, Give

The three things money does, on one page, written down before the money arrives.

IN CLASS THIS WEEK

Review and reasoning

MONEY WARM-UP · 2 MINUTES

You get \$12. A third to save. How much is that? _____

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- Week 17, your goal
- Week 22, the share you chose
- Week 13, your ledger

A plan is what you decided before

Money does three things: it gets spent, it gets saved, or it gets given away. There is no fourth thing.

Deciding the split before the money arrives is easy. Deciding it while holding the money is much harder, and deciding it afterwards is not deciding at all, it is describing.

Write your three numbers now. Week 34 puts them beside what actually happened, and the gap is the interesting part.

Out of every \$12 I get	How much	What for
Spend		
Save		
Give		
Total	\$12	

Make it work at three sizes

If I get	Spend	Save	Give
\$12			
\$6			
\$30			

Each row must add to the amount on the left. A plan that only works for one amount is not a plan, it is a sum.

Sign it, and put the date on it.

► ADD TO YOUR MONEY BOOK

This page is the middle of your Money Book. Week 34 compares it against a real month.

💬 TALK ABOUT IT

Which of the three is hardest to stick to? Say why you think that.

Is a plan still good if you break it once?

**STUCK? TRY THIS**

Pick the save and give amounts first. Spend is whatever is left. Done the other way round, saving whatever is left after spending, there is often nothing left to save.

★ CHALLENGE ZONE

Write your plan as fractions instead of dollars. Does it still work when the amount changes? Which version is more useful?

Where Money Comes From

Somebody did something for it. That is true of every dollar in this book.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

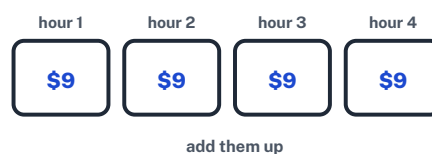
MONEY WARM-UP · 2 MINUTES

Four hours at \$9 an hour. How much? _____

WORDS TO KEEP

earn

Get money by doing work. It is not the same as being given it.



Hours turn into money

Most money starts as somebody's time. Four hours at \$9 an hour is **\$36**, and the four hours are gone.

That is worth knowing because it changes what a price means. A \$36 thing is four hours of somebody's work at \$9. Not always yours, and not always that rate, but always somebody's.

It also explains why the same thing feels expensive to one person and cheap to another. They are not comparing dollars. They are comparing hours.

Every price is somebody's hours

The person who made the thing was paid. So was the person who moved it, and the person who stood in the shop. All of that is inside the price on the label.

You do not need to know how much any of them got. Knowing that they are in there changes what a price is: not a fact about an object, but a stack of somebody's afternoons.

Hours into money

	Hours	Each hour	Earned
a	4	\$9	\$36
b	3	\$12	
c	8	\$7	
d	5	\$20	
e	6	\$15	

Two of these earn the same amount from different hours. Which two? Would you rather have been either one of them?

TALK ABOUT IT

Is an hour worth the same to everybody?

Name three jobs you have seen people do. Which would you most like to try, and why?

**STUCK? TRY THIS**

Multiply the hours by what each hour pays.

★ CHALLENGE ZONE

A thing costs \$60. One person earns \$10 an hour and one earns \$30. How many hours is it for each of them? Is it the same thing?

Paid By the Hour

The clock decides. Work longer and you get more, and that cuts both ways.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

MONEY WARM-UP · 2 MINUTES

You earn \$8 an hour. How much for 5 hours? _____

WORDS TO KEEP

per hour

The same amount for each hour you work.

hour 1	hour 2	hour 3	hour 4	hour 5

add them up

More hours, more money, less time

Paid by the hour, doubling your hours doubles your money exactly. Nothing else in this book is that simple.

The cost is on the other side. Eight hours at \$8 is \$64 and eight hours gone, and week 3 said that time is a cost with no label on it. Somebody working twice as long is not twice as well off.

The trade you cannot get out of

Paid by the hour at one rate, the only way to earn more is to work longer. There is no clever version.

The other way is a higher rate, which is why people learn to do things fewer people can do. That changes the rate rather than the hours, and it takes a while. Week 27 is the first look at the other side of it.

Fill in the earnings

Hours	At \$8	At \$12	At \$15
2	\$16		
4			
6			
8			

Find two boxes in this table with the same amount in them. What is different about the two ways of getting there?

TALK ABOUT IT

Doubling the hours doubles the money. Does doubling the money double how well off you are? Would you rather work 4 hours at \$12 or 6 hours at \$8? Both come to the same. Say which and why.

**STUCK? TRY THIS**

One row at a time, across. Multiply the hours by each rate.

★ CHALLENGE ZONE

You need \$48. Write every pair of hours and rate from this table that would get you there.

Paid For the Job

One amount for the whole thing, however long it takes. Sometimes that is the better deal and sometimes it is not.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

MONEY WARM-UP · 2 MINUTES

\$30 for a job that takes 3 hours. What is that per hour? _____

WORDS TO KEEP

per job

One amount for the whole job, however long it takes.

Fast is worth money, and slow costs you

\$30 for the job. Take 3 hours and you made **\$10 an hour**. Take 6 and you made \$5.

Paid by the hour, going slower earns more. Paid for the job, going slower earns less. Same work, opposite pull, and it is worth knowing which one you are on before you agree to it.

Neither is a trick. A job price is a bet that you will be quick, made by both sides.

The job pays	It took	Per hour	Better than \$8 an hour?
\$30	3 hours	\$10	yes
\$30	5 hours		
\$48	4 hours		
\$20	4 hours		

More to try

1. Which row paid best per hour?
2. In which rows would \$8 an hour have paid more than the job did?
3. You get faster and now the first job takes 2 hours. What is your rate now?
4. Would the person paying you rather you were fast or slow? Why?

► ADD TO YOUR MONEY BOOK

Add an Earning page: what you did, how long it took, and what it came to per hour. Even for chores.

TALK ABOUT IT

Getting better at something changes what you earn for it, without anybody raising your pay. How?

Name a job that should be paid by the hour, and one that should be paid by the job.

**STUCK? TRY THIS**

Divide what the job pays by how many hours it took. That is the rate you actually got.

★ CHALLENGE ZONE

A job pays \$40. You think it takes 4 hours. It takes 8. What rate did you get, and what should you do about the next one?

How Long to Earn It?

A price, in hours instead of dollars. It is the same number wearing different clothes.

IN CLASS THIS WEEK

Division as equal groups (3.OA.2)

MONEY WARM-UP · 2 MINUTES

It costs \$24 and you earn \$8 an hour. How many hours? _____

WORDS TO KEEP

how long

Price divided by what you earn each hour. The answer is in hours.

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- Week 26, what you earn an hour

Three hours, not twenty-four dollars

\$24 at \$8 an hour is **3 hours**. That is the price, said the other way.

Dollars are hard to feel. Hours are not. A student who works out that a thing costs three hours of their Saturday makes a different decision from one who only knows it costs \$24, and neither of them is being irrational.

Do this to something you want this week. It may change your mind about some of them, and it is supposed to.

Two people, two prices, one label

A \$60 thing is six hours to somebody earning \$10 and two hours to somebody earning \$30. The label says \$60 to both of them.

This is the honest reason the same thing is expensive to one person and not to another, and it has nothing to do with either of them being sensible. It is worth knowing before you decide what somebody else should be able to afford.

The price, in hours

	It costs	You earn	Hours
a	\$24	\$8 an hour	3
b	\$45	\$9 an hour	
c	\$60	\$12 an hour	
d	\$35	\$7 an hour	
e	\$100	\$10 an hour	

Row e is a whole working day and a bit. Say whether that changes how the price feels, and be honest.

► ADD TO YOUR MONEY BOOK

Add an In Hours page. Next to each thing you wanted this year, write what it cost in hours as well as dollars.

💬 TALK ABOUT IT

Two people earn different amounts. Does the same thing cost them the same?

Pick something you want. Work out its price in hours.

**STUCK? TRY THIS**

Divide what it costs by what you earn each hour. The answer is in hours.

★ CHALLENGE ZONE

It costs \$50, you earn \$10 an hour, and getting to the work takes half an hour each way. How many hours does it really cost?

Time Costs Money Too

The trip to the cheaper shop takes fifty minutes. Now work out whether it was worth it.

IN CLASS THIS WEEK

Time intervals in minutes (3.MD.1)

MONEY WARM-UP • 2 MINUTES

You leave at 2:15 and get back at 3:05. How long were you gone? _____

WORDS TO KEEP

elapsed

How much time went past between the start and the end.



Fifty minutes for two dollars

Out at 2:15, back at 3:05. That is **50 minutes**, and you saved \$2 by going.

Week 3 said time is a cost with no label. This is the week you put a number on it. Fifty minutes for two dollars is about a dollar every twenty-five minutes, and you can compare that to what an hour of your time is worth from week 26.

If you earn \$8 an hour, fifty minutes is worth nearly \$7, and you just spent nearly \$7 of time to save \$2. That is not a mistake if you enjoyed the walk. It is a mistake if you thought you were being careful.

Count up, do not subtract

2:15 to 3:05 looks like a subtraction and it is not, because there are sixty minutes in an hour and not a hundred.

Go up to the next hour first: 2:15 to 3:00 is 45 minutes. Then keep going: 3:00 to 3:05 is 5 more. Fifty. Doing it the other way gives you 90, which is wrong and looks reasonable, which is the worst combination.

Work out the time, then the trade

Left at	Back at	How long	Saved	Worth it?
2:15	3:05	50 min	\$2	
4:30	5:00		\$1	
9:20	11:00		\$8	
1:45	2:15		\$5	

One of these saves the most money and one is the best deal for your time. They are not the same row.

TALK ABOUT IT

When is a long trip to save a little worth it anyway?

How long is your walk to school? What else could that time be?

**STUCK? TRY THIS**

Count up to the next hour first, then on to the finish time. 2:15 to 3:00 is 45 minutes, then 5 more.

★ CHALLENGE ZONE

Two shops. One is 10 minutes away and saves \$1. One is 40 minutes away and saves \$3. Which is the better use of your time, and what did you have to assume?

The Long Wait

A goal far enough away that you have to write it down to believe in it.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

MONEY WARM-UP · 2 MINUTES

\$120 at \$5 a week. How many weeks? _____

WORDS TO KEEP

far off

A goal that takes so long you have to write it down to believe it.



Twenty-four weeks is most of a school year

\$120 at \$5 a week is **24 weeks**. Say that out loud before you decide anything.

A goal this far off does something the eight-week one in week 17 did not: it stops feeling real. The way through is to break it up. At 24 weeks you are a quarter of the way there after 6, halfway after 12, and those are dates you can put on a page.

The other honest answer is to change the goal. Wanting something less than you thought is a real finding, not a failure of character.

Break it up

	Weeks	You will have	About when
Quarter of the way	6	\$30	
Halfway			
Three quarters			
All of it			

Put a real date in the last column, starting from today. Then decide whether you still want it.

► ADD TO YOUR MONEY BOOK

Add the four dates to your Goal page from week 17. Cross them off as they arrive.

💬 TALK ABOUT IT

Does knowing it is 24 weeks make you more likely to start or less?

Is changing your mind about a goal the same as giving up?

**STUCK? TRY THIS**

Divide the goal by the weekly amount for the total weeks. Then take a quarter, a half and three quarters of that.

★ CHALLENGE ZONE

Same \$120 goal. You could save \$5 a week for 24 weeks, or \$10 a week for 12. What would have to change for the second one to be possible?

Borrow It or Wait?

You can have it now and owe the money, or wait and owe nothing. Both are real choices with real costs.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP · 2 MINUTES

You borrow \$20 and pay back \$5 a week. How many weeks? _____

WORDS TO KEEP

borrow

Have it now and owe it. You still have to pay, just later.

Borrowed money is still owed

Borrowing moves the thing to now and leaves the paying for later. It does not make the paying go away.

Borrow \$20 and you have the thing today, and for the next four weeks \$5 of everything you get is already spoken for. Your money is smaller before it arrives, and week 24's plan does not work any more.

Sometimes that is worth it. A person who borrows to fix the thing that gets them to work has made a good decision. A person who borrows because waiting was annoying has bought four weeks of a smaller allowance.

This book stops here. Borrowing usually costs extra on top, and that is a bigger idea for a later year.

What borrowing actually moves

Borrowing does not create money. It moves the having to now and the paying to later, and the paying is the same size when it arrives.

What it does change is your next four weeks. Your money is smaller before it turns up, and the plan you wrote in week 24 was written for money that is no longer all yours.

Now, or later

	Wait and save	Borrow and pay back
When do you get it?	in 4 weeks	today
What is your money like for 4 weeks?	\$5 less each week	
What do you have at the end?		
What could go wrong?		

Both columns end with the same thing and the same money gone. What is actually different between them?

TALK ABOUT IT

Somebody says borrowing is always bad. Is that true? Give one case where it is a good decision.

What would you want to know before you borrowed anything?

**STUCK? TRY THIS**

Divide what you borrowed by what you can pay back each week. That is how many weeks your money is already spoken for.

★ CHALLENGE ZONE

You borrow \$20 and something you did not expect costs \$10 in week 2. What happens to your paying back? Write what you would do.

Paying It Back

What paying back actually looks like, week by week, until the number reaches zero.

IN CLASS THIS WEEK

Adding and subtracting within 1000 (3.NBT.2)

MONEY WARM-UP · 2 MINUTES

You owe \$20 and pay \$5. What is still owed? _____

WORDS TO KEEP

pay back

Give back what you borrowed. Until you do, you still owe it.

What happened	In	Out	Left
Started with			owe \$20
Week 1, paid \$5			
Week 2, paid \$5			
Week 3, paid \$5			
Week 4, paid \$5			

Down to zero, and then you owe nothing

\$20, then \$15, then \$10, then \$5, then **nothing**. Four weeks and you owe nobody anything.

Watching the number go down is the useful part. It is the same arithmetic as the ledger in week 13 running the other way, and it is the first time in this book that a number counting down to zero is a good thing.

Fill in what is still owed

After	You paid	Still owed
Start		\$20
Week 1	\$5	
Week 2	\$5	
Week 3	\$5	
Week 4	\$5	

1. In which week does it reach zero?
2. You miss week 3. When does it reach zero now?
3. You pay \$10 in week 1 instead. When now?

TALK ABOUT IT

Paying more each week finishes sooner. What does it cost you to do that?

Why might somebody choose to pay it off slowly even when they could go faster?

**STUCK? TRY THIS**

Take the payment off the amount still owed, one week at a time, and write the new number.

★ CHALLENGE ZONE

You owe \$20 and can pay \$5 a week, but you also planned to save \$3 a week from week 24. Can you do both? Show what you would change.

A Whole Month

Four weeks of your own ledger, looked at together, which no single week can show you.

IN CLASS THIS WEEK

Multiplication and division word problems (3.OA.3)

MONEY WARM-UP · 2 MINUTES

Four weeks at \$6 a week. How much came in? _____

WORDS TO KEEP

month

About four weeks. This page looks at four weeks of the ledger together.

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- Week 13 onward, your ledger
- Week 15, your week graph

week 1	week 2	week 3	week 4
_____	_____	_____	_____

in, out, and what was left, each week

A month shows what a week hides

One expensive week looks like a disaster. Four weeks together show whether it was.

Add up the ins for the month and the outs for the month. The gap between them is what you kept, and it is the only number in this book that describes how you are actually doing.

If you have not kept the ledger, do the four weeks from memory and then keep it properly for the next four. Comparing the two is its own lesson and not a comfortable one.

The month

	Week 1	Week 2	Week 3	Week 4	Month
In					
Out					
Kept					

1. Which week was your most expensive?
2. Did any week end with less than it started?
3. What did you keep over the whole month?
4. Is the month's Kept the same as adding the four weekly Kepts?

► ADD TO YOUR MONEY BOOK

File the whole month. It is the evidence for week 34 and the last big page in the book.

TALK ABOUT IT

One bad week in a good month. Does it matter?

What would you have to change to keep twice as much next month?

**STUCK? TRY THIS**

Do the Ins row all the way across first, then the Outs, then the Kept. Doing one week completely at a time makes it harder to spot the pattern.

★ CHALLENGE ZONE

Your month kept \$12. At that rate, how long to reach the goal from week 17? Is that faster or slower than you planned?

Did the Plan Hold?

Week 24's plan, written before anything happened, next to the month that actually happened.

IN CLASS THIS WEEK

Two-step word problems (3.OA.8)

MONEY WARM-UP · 2 MINUTES

You planned to save \$4 and saved \$2. By how much did you miss? _____

WORDS TO KEEP

plan against real What you said would happen, next to what did.

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- Week 24, your Spend Save Give plan
- Week 33, your month

A gap is normal and it is information

A plan rarely comes out exactly, and a plan that came out perfect is usually a plan that got written afterwards.

The question is not whether there is a gap. It is which way it went and why. If you saved less than you planned and spent more, the useful follow-up is **on what**, which your ledger can tell you and your memory cannot.

Then you get one decision: change the behavior, or change the plan. Both are allowed. Doing neither and writing the same plan again is the only wrong answer.

Plan against real

	Planned	Actually	Difference
Spend			
Save			
Give			
Total			

1. Which row was furthest off?
 2. Was the total the same? If not, where did the extra come from or go?
 3. Change the behavior, or change the plan? Pick one and write it as a sentence.
-

► ADD TO YOUR MONEY BOOK

File both columns side by side. This is the page a grown-up should read if they only read one.

💬 TALK ABOUT IT

Is a plan you missed a bad plan?

Which is harder, changing what you do or changing what you promised?

**STUCK? TRY THIS**

Fill the Planned column from week 24 and the Actually column from week 33. Do not adjust either one to make them closer.

★ CHALLENGE ZONE

Write next month's plan so that it is honest about this month. Say what changed and why, in one sentence.

Your Money Book, Finished

Everything you wrote down this year, in order, and what it adds up to.

IN CLASS THIS WEEK

Review and reasoning

MONEY WARM-UP • 2 MINUTES

Nineteen entries, one every other week. Which would you keep? _____

◀ YOU WILL NEED, FROM YOUR MONEY BOOK

- The whole Money Book

Put it in order and read it

Nineteen entries, written by you, across a school year. Nobody else has this book and nobody else could have written it, because every number in it is yours.

Read it from the front. Week 1 is a page about two things and one coin. Week 34 is a month of your own money against a plan you made in advance. That distance is the year.

From your Money Book	Which week	What it says now
The first thing I gave up	1	
My goal	17	
My plan	24	
My month	33	
The page I would keep		

Two questions to finish it

1. What is one thing you do differently now because of something on one of these pages? Be specific: not *I think about money more*, but the thing you actually do.

2. What is one thing in this book you disagree with? You are allowed to, and saying which is worth more than agreeing with all of it.

► ADD TO YOUR MONEY BOOK

Put this page at the front of the Money Book. It is the one somebody reading it should see first.

TALK ABOUT IT

Which week was the hardest? Which one was the most useful? They are probably not the same week.

Show one page of this book to somebody at home and ask what they think.

**STUCK? TRY THIS**

Every row is a page you already wrote. This week is putting them in order, not doing new work.

★ CHALLENGE ZONE

Write the page you wish had been in this book and was not.

What It Cost You

Back to week 1, with a year of your own numbers behind it.

IN CLASS THIS WEEK

Review and reasoning

MONEY WARM-UP · 2 MINUTES

Two things, one coin. Which do you pick now? _____

WORDS TO KEEP

worth it

Something only you can decide, using numbers you wrote down.

a book

\$4

a game

\$3

you have

\$5

The same page as week 1

Same two things, same five dollars. Thirty-five weeks later.

You can do more with it now. You can work out what is left, what you gave up, how long either one would take to save for, what each costs in hours, and whether you would rather wait. In week 1 you could only pick.

That is what this year was. Not learning that money is limited, which you already knew, but getting a set of things to do about it.

Answer it properly this time

1. Which do you pick, and what did you give up? Write both boxes on your What It Cost Me page from week 2.
2. What is left afterwards?
3. You keep what is left and save \$2 a week. How long until you can buy the other one as well?
4. If you earn \$8 an hour, what does the book cost in hours?
5. Would you rather wait a week and have both? Say why.

Next year, in Grade 4, the question turns around: instead of deciding what to buy, you work out what somebody else would buy from you.

► ADD TO YOUR MONEY BOOK

The last page. Keep the whole book: it is a year of your own money, written down.

TALK ABOUT IT

Week 1 asked which one you pick. This week asked five questions about the same page. Which of the five would you not have understood in September?

What is the one thing from this year you would tell somebody younger?

**STUCK? TRY THIS**

Every question is a week you already did. Write the week number beside each answer.

★ CHALLENGE ZONE

Write the week 1 page for somebody a year younger than you, using numbers they would care about.



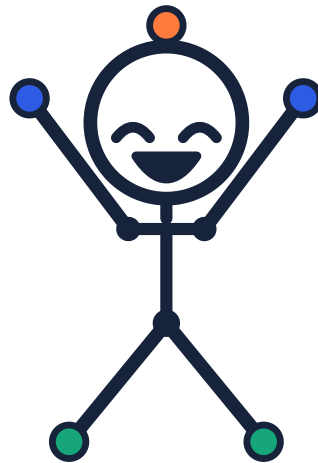
Young Innovators
FOR CHANGE
innovateyouth.org

Grade 3 · The Choosing Year

Certificate of Completion

This is to certify that

completed thirty-six weeks of work about money: counted it, compared prices, wrote down where it went for a whole month, saved for something that took longer than they wanted, worked out what things cost in hours as well as in dollars, and said out loud, week after week, what a choice had cost them.



Teacher

Date

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