


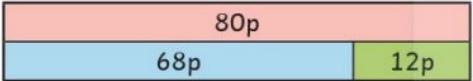
Summer Term 1 Overview Year 4 – Maths - Money

Summer Term 1 Book – The Ironman

Topic - Measurement: Money		Guide Time = 2 weeks
Assessment:	White Rose Maths Hub end of block assessments End of term assessments – NFER assessments Teacher assessment judgements based on AfL	Very Important Points (VIPs): <ul style="list-style-type: none"> • 100p = £1 • To convert from pence to pounds, you need to divide by 100. • When dividing a number by 100, it moves two places to the right on a place value chart because it's getting one hundred times smaller. • To convert from pounds to pence, you need to multiply by 100. • When multiplying a number by 100, it moves two places to the left on a place value chart because it's getting one hundred times bigger. • When adding or subtracting money, you need to ensure they are both in pence or both in pounds. • British currency is sterling. • British bronze coins include 1p and 2p. • British silver coins include 5p, 10p, 20p and 50p. • British gold coins include £1 and £2. • British notes include £5, £10, £20 and £50. • Ascending means increasing and descending means decreasing. • It is advised to add the pounds first when adding money. You can then exchange the pennies in to pounds if necessary. • When rounding to the nearest pound, you need to look at the tenths column. E.g. £3.52 would round to £4 because there is a 5 in the tenths column. • 0 – 4 round down. • 5 – 9 round up.
Links to prior learning (sequencing) and canon book	<p>Children's knowledge and understanding of money will build upon their already existing knowledge of place value and previous terms learning of decimals.</p> <p>Children will have been first introduced to money in KS1 where they learnt to read and say amounts of money confidently and use the symbols £ and p. This learning supported their understanding in year 3 where they added and subtracted amounts of money to give change using pounds and pence.</p> <p>Through completing weekly skills checks and arithmetic tests, child will have already encountered adding and subtracting and ordering money.</p>	
Links to other learning (cross fertilisation)	<p>Throughout computing children will be preparing themselves for the future by gaining computer knowledge and skills. They will also explore how money is used within the digital world.</p> <p>In DT, the children will be designing and creating an Ironman robot. They will use their money knowledge to decide upon materials needed to create the above but which are also affordable.</p> <p>In History, children will be looking at the topic of Anglo-Saxons. They can use their money understanding to compare and contrast money from Anglo-Saxon times to today.</p> <p>In PSHE, children will be learning about roles and responsibilities. This is an important link to the money topic as children will be able to explain why we have to be responsible with money and the consequences it we are not.</p>	

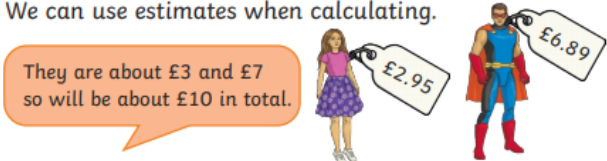
Links to future learning	<p>The skills taught this half term will form the basis of all future learning on money as the children move up through the school. Children are able to develop and build-upon prior learning, which they can apply across all aspects of the school curriculum and in weekly arithmetic tests, termly assessments or to help them prepare for the following year.</p> <p><u>Thematic questions:</u></p> <p><u>The World Beyond Us:</u> How can money support our understanding of the world beyond us?</p> <p><u>Modern Britain:</u> How would the world be different if we didn't have physical money?</p> <p><u>Healthy Bodies, Healthy Minds:</u> Is there a link between poor mental health and money? How can we use money to promote a healthy body?</p> <p><u>The World Around Us:</u> How do different countries use money? Have we all got the same currency? Why? Why not?</p> <p><u>Culture:</u> How do different cultures perceive money?</p> <p><u>Technology in Action:</u> How does the use of technology change how we spend money? Does using debit and credit cards cloud our judgement of money?</p>	<p>Fat Question: How do you think the world would be different if there was no physical money (coins and notes)?</p>
Character/Wider Development ('50 things', cultural capital, skills)	<p>As part of our 50 things:</p> <ul style="list-style-type: none"> - Children will go to the movies with the whole class. They will need to use their money knowledge to budget the price of a ticket, getting to the cinemas and any snacks they wish to buy. - Children will make a meal from another culture. They will need to calculate the cost of each ingredient and go to the shop to buy it. - Children will visit a local restaurant. They will need to calculate the cost of each meal and how much change they will receive. 	

OVERVIEW OF TEACHING SEQUENCE

Key Facts Learning	Learning Focus or Key Question	Learning Outcomes (NC)	Key Words/ Vocabulary	Greater Depth/SEND	Misconceptions	Activities and Resources
Pounds and pence (2 lessons split into varied fluency and problem solving)	LO: To understand pounds and pence.	Estimate, compare and calculate different measures, including money in pounds and pence.	Amount Change Combinations Estimate Decimal Pence Penny Pounds Round Value Convert	<p>GD: Children to complete challenges linked to reasoning and problem solving showing clear understanding. Clearly showing their methods with written feedback on why and how they have got to an answer.</p> <p>Provide opportunities to investigate new areas in depth.</p> <p>Ensure they manage their own learning using learning tools independently and recognising they need these learning tools independently.</p> <p>Model complex ideas to help encourage deeper thinking.</p> <p>Teaching peers in class.</p> <p>SEND: Allow time to recap and go through previous learning.</p> <p>Using a range of pre-teaching activities will support children's</p>	<p>Children may think that:</p> <p>There are 10p = £1.</p> <p>Pence and pounds cannot be equivalents.</p> <p>All amounts have a coin/note equivalent. E.g. there is a £1.50 coin.</p> <p>Decimals are different to money.</p> <p>You can't use the place value chart to convert between pounds and pence.</p> <p>All silver coins and bronze have the same value.</p>	<p>Children will develop their understanding of pounds and pence. This is the first time they are introduced to decimal notation for money. Once children are confident with this, they can move on to converting between different units of money.</p> <p>Children will use models, such as part-whole model, to recognise the total of an amount being partitioned in pounds and pence. E.g.</p> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> <p>Pounds and Pence</p>  </div>  </div> <p>Resources: White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-4/summer-block-2-money/ NCETM https://www.ncetm.org.uk/in-the-classroom/national-curriculum-resource-tool/?topic=1563&year=1757 Classroom secrets https://classroomsecrets.co.uk/category/maths/year-4/summer-block-2-money/</p>

				<p>understanding of key concepts.</p> <p>Pictorial and physical manipulatives could be used to further support children's understanding of decimals, securing their decimal place value knowledge e.g. use of base ten or bar modelling.</p> <p>Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding.</p> <p>Children to complete varied fluency questions with opportunity to move onto reasoning and problem solving, once they are secure.</p>	<p>Third Space Learning https://mathshub.thirdspacelearning.com/resources?schoolyears=y4&categories=measurement</p> <p>Mathematical questions: How many pence make a pound?</p> <p>Why do we write a decimal point between the pounds and pence?</p> <p>How would we write 343p using a pound sign?</p> <p>How can the amounts be partitioned in to pounds and pence?</p> <p>Is there only one way to complete the part-whole model?</p> <p>How can these amounts be converted into pounds and pence?</p> <p>Deepen the moments: A book costs £2.50. Tom says, 'I have two £1 coins, two 20p coins and a 5p coin. Ben says, 'I have a £2 coin, three 10p coins and four 5p coins'. Can both of the children afford to buy the book? Explain how you know.</p> <p>Below John has converted pence to pounds.</p> <p>a. 1308p = £13.08 b. 550p = £5.5 c. 1407p = £140.7 d. 780p = £7.80</p> <p>Tick the correct answers and explain any errors he has made.</p>
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<p>Ordering money</p> <p>(2 lessons split into varied fluency and problem solving)</p>	<p>LO: To order money.</p>	<p>Estimate, compare and calculate different measures, including money in pounds and pence.</p>	<p>Amount Change Combinations Estimate Decimal Pence Penny Pounds Round Value Convert</p>	<p>GD: Children to complete challenges linked to reasoning and problem solving showing clear understanding. Clearly showing their methods with written feedback on why and how they have got to an answer.</p> <p>Provide opportunities to investigate new areas in depth.</p> <p>Ensure they manage their own learning using learning tools independently and recognising they need these learning tools independently.</p> <p>Model complex ideas to help encourage deeper thinking.</p> <p>Teaching peers in class.</p> <p>SEND: Allow time to recap and go through previous learning.</p> <p>Using a range of pre-teaching activities will support children's understanding of key concepts.</p> <p>Pictorial and physical manipulatives could be used to</p>	<p>Children may think that:</p> <p>You can't order amounts of money unless they are all in either pence or pounds.</p> <p>Pence is always bigger because it uses more columns on the place value grid. E.g. 520p is larger than £7.20.</p> <p>Ascending means getting smaller and descending means getting larger.</p>	<p>In a purse there are 6 coins which equal £1.09. List all the combinations.</p> <p>Children will use their knowledge of £1 = 100p to compare amounts. Children begin by ordering amounts represented in the same format. E.g. 4,562p = £45.62 and relate this to their place value knowledge.</p> <p>Once children understand this, they will look at totals that include mixed pounds and pence and also totals represented in decimals notation. Using real notes and coins to support children.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Order in ascending order:</p> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px 10px;">516p</td> <td style="padding: 2px 10px;">156p</td> <td style="padding: 2px 10px;">£1.65</td> <td style="padding: 2px 10px;">£6.51</td> </tr> </table> <p>£1.65 = 165p and £6.51 = 651p</p> <p>156p, £1.65, 516p, £6.51</p> </div> <p>Resources: White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-4/summer-block-2-money/ NCETM https://www.ncetm.org.uk/in-the-classroom/national-curriculum-resource-tool/?topic=1563&year=1757 Classroom secrets https://classroomsecrets.co.uk/category/maths/year-4/summer-block-2-money/ Third Space Learning https://mathshub.thirdspacelearning.com/resources?schoolyears=y4&categories=measurement</p> <p>Mathematical questions: What does the digit ? represent? What place value column is the digit in? How many pounds/pence is it equivalent to?</p>	516p	156p	£1.65	£6.51
516p	156p	£1.65	£6.51							

				<p>further support children's understanding of decimals, securing their decimal place value knowledge e.g. use of base ten or bar modelling.</p> <p>Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding.</p> <p>Children to complete varied fluency questions with opportunity to move onto reasoning and problem solving, once they are secure.</p>		<p>How can this help us decide which amount is larger/smaller?</p> <p>Can we think of an amount which could go in between these amounts?</p> <p>What does ascending/descending mean?</p> <p>What's the same? What's different?</p> <p>Deepen moments:</p> <p>Kate is making price labels for her shop. Her items all sell for more than £5 but less than £10. Use the digit cards 7, 5, 3, 1 to show how many different prices she can make. Write the prices in ascending order.</p> <p>I think that £2.21 would be before 107p because there is only 2 ones, no tens and no hundreds. Do you agree? Justify your answer.</p>
<p>Estimating money</p> <p>(2 lessons split into varied fluency and problem solving)</p>	<p>LO: To use rounding to estimate money.</p>	<p>Estimate, compare and calculate different measures, including money in pounds and pence.</p>	<p>Amount Change Combinations</p> <p>Estimate Decimal Pence Penny Pounds Round Value Convert</p>	<p>GD:</p> <p>Children to complete challenges linked to reasoning and problem solving showing clear understanding. Clearly showing their methods with written feedback on why and how they have got to an answer.</p> <p>Provide opportunities to investigate new areas in depth.</p> <p>Ensure they manage their own learning using learning tools independently and recognising</p>	<p>Children may think that:</p> <p>You can't round decimals/money.</p> <p>The rounding rule doesn't apply to money.</p> <p>It's easier to estimate just using pence because there is no decimals involved.</p>	<p>Children will use their rounding knowledge to round amounts of money written in decimal notation to the nearest pound. They will estimate the total of two amounts and move on to estimating with more than two amounts.</p> <p>Children will discuss underestimating and overestimating and link this to rounding down or up and apply it to real life scenarios such as buying food in the supermarket.</p> <div data-bbox="1491 1206 2128 1385" style="border: 1px solid black; padding: 5px;"> <p>We can use estimates when calculating.</p>  </div>

they need these learning tools independently.

Model complex ideas to help encourage deeper thinking.

Teaching peers in class.

SEND:

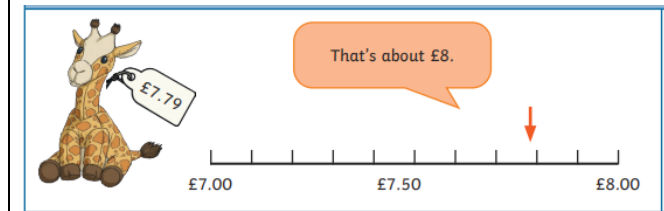
Allow time to recap and go through previous learning.

Using a range of pre-teaching activities will support children's understanding of key concepts.

Pictorial and physical manipulatives could be used to further support children's understanding of decimals, securing their decimal place value knowledge e.g. use of base ten or bar modelling.

Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding.

Children to complete varied fluency questions with opportunity to move onto reasoning and problem solving, once they are secure.



Resources:

- White Rose Maths Premium Resources - <https://resources.whiterosemaths.com/resources/year-4/summer-block-2-money/>
- NCETM <https://www.ncetm.org.uk/in-the-classroom/national-curriculum-resource-tool/?topic=1563&year=1757>
- Classroom secrets <https://classroomsecrets.co.uk/category/maths/year-4/summer-block-2-money/>
- Third Space Learning <https://mathshub.thirdspacelearning.com/resources?schoolyears=y4&categories=measurement>

Mathematical questions:

If we have £7.79, what whole numbers/pounds does this come in between? Where will it go on the number line? Which pound is it nearer to?

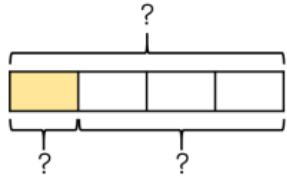
What does estimate mean? What does approximately mean?

Where would be a sensible place to start labelling the number line?

What will each amount round to? How much will they total altogether?

If you had £7.79, would you have enough to buy the items?

						<p>Deepen the moments: Morgan and Eva's mum asks them to estimate how much change she will get if she pays for her shopping with a £20 note. Peas - £4.83 Broccoli - £2.44 Butter - £3.54 Milk - £1.93 Morgan says, 'I estimate Mum should get approximately £7 in change.' Eva says, 'I think Mum's change will be closer to £8.' Who is correct? Justify your answer.</p> <p>Estimating is just the same as guessing. There is no real thinking behind it. Do you agree? Justify your answer.</p> <p>George saves some of his pocket money each week for a whole month and writes it down.</p> <p>a) Complete the table to show the missing values.</p> <table border="1" data-bbox="1547 860 2157 1268"> <thead> <tr> <th></th> <th>Actual Amount Saved</th> <th>Amount Saved When Rounded to the Nearest Pound</th> </tr> </thead> <tbody> <tr> <td>Week 1</td> <td>£1.47</td> <td></td> </tr> <tr> <td>Week 2</td> <td>£2.54</td> <td></td> </tr> <tr> <td>Week 3</td> <td></td> <td>£2</td> </tr> <tr> <td>Week 4</td> <td></td> <td>£4</td> </tr> </tbody> </table>		Actual Amount Saved	Amount Saved When Rounded to the Nearest Pound	Week 1	£1.47		Week 2	£2.54		Week 3		£2	Week 4		£4
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Week 1	£1.47																				
Week 2	£2.54																				
Week 3		£2																			
Week 4		£4																			
Four operations	LO: To solve money problems	Estimate, compare and	Amount Change Combinations	GD: Children to complete challenges linked to reasoning	Children may think that:	Children will solve simple problems with money, involving all four operations. Children will explore different methods, such as column methods, partitioning															

<p>(2 lessons split into varied fluency and problem solving)</p>	<p>using the four operations.</p>	<p>calculate different measures, including money in pounds and pence.</p>	<p>Estimate Decimal Pence Penny Pounds Round Value Convert</p>	<p>and problem solving showing clear understanding. Clearly showing their methods with written feedback on why and how they have got to an answer.</p> <p>Provide opportunities to investigate new areas in depth.</p> <p>Ensure they manage their own learning using learning tools independently and recognising they need these learning tools independently.</p> <p>Model complex ideas to help encourage deeper thinking.</p> <p>Teaching peers in class.</p> <p>SEND: Allow time to recap and go through previous learning.</p> <p>Using a range of pre-teaching activities will support children's understanding of key concepts.</p> <p>Pictorial and physical manipulatives could be used to further support children's understanding of decimals, securing their decimal place value knowledge e.g. use of base ten or bar modelling.</p>	<p>You can only use column addition or subtraction when working with pence.</p> <p>You can use column addition or subtraction using one amount in pounds and one amount in pence.</p> <p>You can't multiply or divide money.</p> <p>Calculating change doesn't involve the four operations.</p> <p>When adding notes and coins you just add them all together. E.g. $£5 + 230p = £5.230$</p>	<p>and recombining to add money. They will use prior knowledge of converting, as well as number bonds, to help them. Bar modelling will also be used as a strategy when solving problems. E.g.</p> <p>Ron has £48. He spends one quarter of his money.</p> <p>How much does he have left? Use the bar model to help.</p>  <p>Resources: White Rose Maths Premium Resources - https://resources.whiterosemaths.com/resources/year-4/summer-block-2-money/ NCETM https://www.ncetm.org.uk/in-the-classroom/national-curriculum-resource-tool/?topic=1563&year=1757 Classroom secrets https://classroomsecrets.co.uk/category/maths/year-4/summer-block-2-money/ Third Space Learning https://mathshub.thirdspacelearning.com/resources?schoolyears=y4&categories=measurement</p> <p>Mathematical questions: How can we label the bar model? What other questions could we ask? What operation will we use? How can we partition pounds and pence to help add two amounts? Is there an alternative way to answer this question?</p> <p>Deepen the moments:</p>
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				<p>Access to 'helpful' peers and clear modelling from adults are vital in ensuring children gain a secure understanding.</p> <p>Children to complete varied fluency questions with opportunity to move onto reasoning and problem solving, once they are secure.</p>		<p>Always. Sometimes. Never.</p> <p>When dividing a number by 100 I simply remove the zeros from the number. For example: 900 divided by 100 equals 9. Justify your answer.</p> <p>When adding two amounts together you can have one written in pence and one written in pounds. Do you agree? Justify your answer.</p> <p>Using a bar model is the only way to subtract money. Do you agree? Justify your answer.</p>
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Context (big picture learning)

Mathematics is an important, creative discipline that helps us to understand and change the world. We want all of our children within the PonteFract Academies Trust to experience all that mathematics has to offer and to develop a sense of curiosity about the subject with a clear understanding. As they grow throughout primary education, we want them to feel a sense of pride and achievement within this core subject: a subject that will impact their daily lives.

A key aspect of this will be the positive attitude we have and will pass onto the children, as they learn important mathematical concepts during their mathematics learning journey. We include VIPs (Very Important Points) to help children know their learning outcomes and retain and repeat important this knowledge over time.

Mistakes and misconceptions are a key part of the successes during their learning journey, as these moments help to show resilience, perseverance and commitment to learning mathematical concepts. At our school, the majority of children will be taught the content from their year group only. All children will have the opportunity to progress, build on prior knowledge, and have access to reasoning and problem solving questions. These questions help to secure and deepen their thinking and learning with mathematics. Another key factor is cross fertilization at every opportunity. As a whole, the children will spend their time learning, applying and mastering key skills that they will need throughout their life. In year 4, they will build on their mathematical knowledge, which they can take forward with them as they move into year 5 and beyond.

All resources found in folder name - Trust shared > Primaries > KS2 > Year 3/4 Planning > Cycle B > Summer 1 – The Ironman - Maths

Year 4 Knowledge Organiser: Money

VIPs

- 100p = £1
- To convert from pence to pounds, you need to divide by 100.
- When dividing a number by 100, it moves two places to the right on a place value chart because it's getting one hundred times smaller.
- To convert from pounds to pence, you need to multiply by 100.
- When multiplying a number by 100, it moves two places to the left on a place value chart because it's getting one hundred times bigger.
- When adding or subtracting money, you need to ensure they are both in pence or both in pounds.
- British currency is sterling.
- British bronze coins include 1p and 2p.
- British silver coins include 5p, 10p, 20p and 50p.
- British gold coins include £1 and £2.
- British notes include £5, £10, £20 and £50.
- Ascending means increasing and descending means decreasing.
- It is advised to add the pounds first when adding money. You can then exchange the pennies in to pounds if necessary.

Fat Question

How do you think the world would be different if there was no physical money (coins and notes)?

Intent

We will be able to build on our prior knowledge of money from year 3 by and our previous terms learning of decimals. We will be able to convert between pounds and pence, order money and use the four operations. It is important we learn about money to provide life-long skills when using money in real life situations. We will also investigate numerous wider curriculum opportunities that allows us to practise our new money knowledge.

1p	2p	3p	4p	5p	6p	7p	8p	9p	10p
11p	12p	13p	14p	15p	16p	17p	18p	19p	20p
21p	22p	23p	24p	25p	26p	27p	28p	29p	30p
31p	32p	33p	34p	35p	36p	37p	38p	39p	40p
41p	42p	43p	44p	45p	46p	47p	48p	49p	50p
51p	52p	53p	54p	55p	56p	57p	58p	59p	60p
61p	62p	63p	64p	65p	66p	67p	68p	69p	70p
71p	72p	73p	74p	75p	76p	77p	78p	79p	80p
81p	82p	83p	84p	85p	86p	87p	88p	89p	90p
91p	92p	93p	94p	95p	96p	97p	98p	99p	100p

100p = £1.00
 101p = £1.01
 102p = £1.02
 103p = £1.03
 104p = £1.04
 105p = £1.05
 106p = £1.06
 107p = £1.07
 108p = £1.08
 109p = £1.09
 110p = £1.10
 150p = £1.50

Key vocabulary

- Amount - a quantity of money.
- Change – the money that is returned to someone who has paid for something that costs less than the amount that they gave.
- Combinations – the result of two or more things joining together.
- Estimate – educated guess.
- Pence – the smallest unit of British money.
- Penny – another word for pence.
- Pounds – a basic unit of British money, equal to 100 pence.
- Value – how much something is worth.
- Convert – to exchange one type of money for another.
- Currency – the money a country uses.
- Sterling – the name of the currency used in Britain.
- Coin – a flat disc or piece of metal with an official stamp, used as money.
- Note – a piece of paper money.

UK Notes


UK Notes



£5 five pound note £10 ten pound note £20 twenty pound note £50 fifty pound note

UK Coins

UK Coins



£0.01 one penny coin £0.02 two pence coin £0.05 five pence coin £0.10 ten pence coin £0.20 twenty pence coin £0.50 fifty pence coin £1.00 one pound coin £2.00 two pound coin