| Week | Main focus of teaching and activities each day | Starter | Outcomes and plenary for each day |
| :---: | :---: | :---: | :---: |
| 1 | Mental skills for week: <br> - partition into tens and units then recombine; <br> - - add three or four small numbers by putting the largest number first and/or by finding pairs totalling 9, 10 or 11; (starting with twothree numbers) <br> - find a small difference by counting up from the smaller to the larger number; |  |  |
|  | Vocabulary for week: <br> Addition and subtraction <br> Addition/Subtraction: Mentally, addition, add, addition, more, plus, increase, sum, total, altogether, score, double, near double, how many more to make...? subtract, subtraction, take (away), minus, decrease, leave, how many are left/left over? difference between. <br> Estimate, rounding. |  |  |
|  | addition/subtraction <br> Day 1: revise the words used for addition and subtraction- what happens to the answer (increase or decrease)? rehearse simple 2 digit +/- one digit. How can we do this?mentally? <br> Target p12 <br> Day 2: adding and subtracting tens- onus on which number is being changed? target p13 | Day 1: Mental maths, no. bonds, times tables,facts \& vocab Number fans -place value- greatest number with digit 3 and 7 , lowest number with digits 2 and 9 etc. | Day 1: Which is the odd one out? <br> Which is the odd one out? $\square$ |
|  |  | Day 2: Mental maths, no. bonds, times tables,facts \& vocab place value- using numbers with 100 s and 10 s venn for greater than/less than <br> Day 3: Mental maths, no. bonds, times tables,facts \& vocab revise $2 \times 5 \times 10 \times$ tables- in pairs |  |
|  |  |  | Day 2: Spot the mistake. Explain your answer - RUCSAC. |

## Medium term Plan for Autumn Term Year 3 - Beecroft Primary School




|  | Progress to adding 10s across 100 |  | How much for a ruler and a top? etc. <br> Day 3: True/False statement. <br> Conversations - why? RUCSAC. <br> Is the statement true or false? <br> In this calculation, there will be no tens in the answer, because there are no tens in the numbers being added together. <br> Explain your answer. <br> Day 4: Explain the mistake. RUCSAC reasoning. <br> Tiny is working out $325+417$ <br> Explain Tiny's mistake. <br> What is the correct answer? |
| :---: | :---: | :---: | :---: |
| 3 | Mental skills for week: <br> - Odd and even <br> - Count from 0 | mbers ultiples of 4, 8, 50 and 100 |  |

- Read and write numbers up to 1000 in numerals and in words
- $2 \times 4 \times 5 \times 10 \times$ tables
- Doubling and doubling again $=4 x$ table
- Know the number of days in each month, year and leap year


## Vocabulary for week:

PLACE VALUE: Units, ones, tens, hundreds, thousands, digit, one-, two-, three-digit number, place, place value, stands for, represents, the same number as, as many as, equal to, >, greater than, more than, larger than, bigger than, <, less than, fewer than, smaller than, $\geq$, greater than or equal to, $\leq$, less than or equal to, greatest, most, largest, biggest, least, fewest, smallest
one... ten... one hundred... one thousand more/less, compare, order, size, ascending/descending order

## Place value

Day 1:. Exploring 100s-
showing 100 block=100 but so does 10 10s. representing numbers to 1000 using dienes. Pair work- how many 10s? hundreds?- recognise the value of each digit in numbers. Show with dienes representation, expanded form Target p6

Day 2: partitioning using flexible partitioning using part-whole models with numbers up to 1000. LA to use dienes. Simple-

Day 1: Mental maths, no. bonds, times tables,facts \& vocab counting in pairs- in $2 \mathrm{~s} 5 \mathrm{~s} 10 \mathrm{~s}, 50 \mathrm{~s}, 100 \mathrm{~s}$,

Day 2: Mental maths, no. bonds, times tables,facts \& vocab counting in pairs in 4 s and 8 s - completed on 100 square first- 100 square splat

Day 3: Mental maths, no. bonds, times tables,facts \& vocab making numbers using dienes in two different ways. Day 4- Mental maths, no. bonds, times tables,facts \& vocab using the digit cards to make 2 digit numbers reminding children we can only use a car once in one number.

## Addition and subtraction

Day 1: Dienes. Which does not show 100?

Which picture does not show 23?

How do you know?

## Day 2:

|  | partitioning the 100s in various ways. 263= <br> 200+60+3 <br> $263=100+160+3$ <br> Day 3: LONGER mental maths questions with digit cards. making numbers using the place value chart and place value counters. -ordering numbers to 1000 Using three digit cards can we make 5 different 3-digit numbers. Ordering from biggest to smallest, Ordering from smallest to biggest. <br> Day 4: number linesintervals, worth. Practise working out the intervals to be able to find the missing numbers to 1000 |  | Who has made the correct number? This could be done with the children on one table around the teacher. Explain the answers to a partner. <br> Day 3: Missing number ordering. $\begin{aligned} & 431,478, \ldots, 531,589, \ldots \\ & 231, \ldots, 298,354, \ldots, 459 \end{aligned}$ <br> Day 4: Number lines at different points <br> Day 5: Part whole models... |
| :---: | :---: | :---: | :---: |
| 4 | Mental skills for week: <br> Add numbers mentally inclu <br> a three digit number and on <br> a three digit number and te <br> a three digit number and hu | ing: <br> dreds |  |

Partition all numbers and recombine, start with TU + TU then HTU + TU
Subtract numbers mentally, including:
a three digit number and ones
a three digit number and tens
a three digit number and hundreds.

Use a number line, dienes, hundred squares, two hundred
squares, and similar representations, to support mental
calculations.

## Vocabulary for week:

Addition/Subtraction: Mentally, addition, add, addition, more, plus, increase, sum, total, altogether, score, double, near double, how many more to make...? subtract, subtraction, take (away), minus, decrease, leave, how many are left/left over? difference between.
MONEY coin, note, price, cost, spend, spent, pay, change, dear, costs more, more/most expensive, cheap, costs less, cheaper, less/least expensive, how much...? how many...? total, amount, value, worth, discount, profit, loss, currency.

## Addition and subtraction

Day 1: Mrs Carter/Mr
Hancox's shop.
Column addition to find the total price- f and p .
Insistence on decimal points lining up like shirt buttons.

Day 2: Continue from day 1. Column subtraction- finding the change after buying an item.

Day 1: adding /subtracting numbers ending in 9.
+/- 10 and adjust with 1. Practise doing this mentally wit large number square. Chn to use 100 sq

## Day 2: LONGER MENTAL SKILLS SESSION Mental maths, no.

bonds, times tables,facts \& vocab ordering money that using $£$ and $p$. Making sure we use our place value knowledge.

Day 3: 4x tables in pairs. Chanting in pairs.
Day 4: 3 x tables in pairs. Chanting in pairs. Complete the venn for $3 x$ and $4 x$

## Addition and Subtraction <br> Day 1: Teacher feedback

Day 2: Word problems using RUCSAC. Emphasis on the vocabulary underline. As a class.

Day 3: Go through a 3-step problem as a class. Talk through and show. Repeat.

Day 4: Continue as day 3.

|  | Day 3: longer reasoning <br> session Using number lines <br> to find the difference. <br> 2 step- find the total first <br> (column) then number line <br> to count up to find the <br> difference |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Day 4: continuing from day <br> 3 Half-termly times table <br> check up | Mental skills for week: <br> Add numbers mentally including: <br> a three digit number and ones <br> a three digit number and tens <br> a three digit number and hundreds |
| 5 | Partition all numbers and recombine, start with TU + TU then HTU + TU |  |
| Subtract numbers mentally, including: <br> a three digit number and ones <br> a three digit number and tens <br> a three digit number and hundreds. <br> Use a number line, dienes, hundred squares, two hundred <br> squares, and similar representations, to support mental <br> calculations. <br> Vocabulary for week: |  |  |


| Addition/Subtraction: Mentally, addition, add, addition, more, plus, increase, sum, total, altogether, score, double, near double, how many more to make...? subtract, subtraction, take (away), minus, decrease, leave, how many are left/left over? difference between. <br> Estimate, rounding. <br> MONEY coin, note, price, cost, spend, spent, pay, change, dear, costs more, more/most expensive, cheap, costs less, cheaper, less/least expensive, how much...? how many...? total, amount, value, worth, discount, profit, loss, currency. |  |  |
| :---: | :---: | :---: |
| Estimating and rounding <br> Day 1: introducing our strategy- look at the correct place value, 5-9 climb the vine, 1-4 stay on the floor. <br> Rounding 2 digit and 3 digit numbers to the nearest 10/100 <br> Day 2:arithmetic test using rounding knowledge to estimate on a number line <br> Day 3: longer reasoning session estimating answers to + and - but using rounding. reasoning using estimating and rounding <br> Estimate the answer to 482-194 <br> 482 is close to 500 <br> 194 is close to 200 $500-200=300$ <br> Day 4: reasoning test | Day 1: Children work in pairs to shuffle a pack of 20 cards consisting of 2 of each number 0 to 9 . One child turns over the top 2 cards. The first child to say the total wins them. Continue until there are no cards left. Who won most? Repeat. <br> Day 2: Round 3-digit numbers to nearest 10 and 100 Use a random number generator such as at https://www.google.com/search?q=random+number to generate numbers between 100 and 1000. Children work in pairs, one to round the number to the nearest 100 and the other to the nearest 10 , holding up the answers on their whiteboards. Give 0 to 1000 landmarked lines (see below) to any children who need some visual support for rounding to the nearest 100. <br> Day 3: Round amounts of money to the nearest pound (pre-requisite skills) <br> Children each draw a $£ 1 \mathrm{~s}, 10$ ps and 1 ps place value grid. They shuffle a pack of 1-9 cards, take 3 and place in the grid. They round the amount of money to the nearest pound. Repeat. How many can they create and round in 5 minutes? <br> Day 4: Subtract single-digit numbers | Day 1: Rounding 4-digit numbers. Is the same process? Discuss. <br> Day 2: Estimating 3-digit addition and subtraction problems. <br> Day 3: Estimating 4-digit addition and subtraction problems using the same process. <br> Day 4: Continue as the lesson. <br> Day 5: Continue as the lesson. |

## Medium term Plan for Autumn Term Year 3 - Beecroft Primary School

|  | Children play in a group. The first person rolls a 0 to 9 dice and subtracts the number rolled from 100. The next person rolls the dice and subtracts the number from the previous answer. The first <br> Day 1: Mental addition - using hundreds board for support. <br> Day 2: Number fans - timestables (2, 4, 5, 10) <br> Day 3: Dice roll - subtraction. 2 digit - 1 digit. <br> Day 4: Arithmetic style questions on addition and subtraction. |  |
| :---: | :---: | :---: |
| 6 | Mental skills for week: <br> Add numbers mentally including: <br> a three digit number and ones <br> a three digit number and tens <br> a three digit number and hundreds <br> Partition all numbers and recombine, start with TU + TU then HTU + TU <br> Subtract numbers mentally, including: <br> a three digit number and ones <br> a three digit number and tens <br> a three digit number and hundreds. <br> Use a number line, dienes, hundred squares, two hundred squares, and similar representations, to support mental calculations. |  |

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| Vocabulary for week: <br> Addition/Subtraction: Mentally, addition, add, addition, more, plus, increase, sum, total, altogether, score, double, near double, how many more to make...? subtract, subtraction, take (away), minus, decrease, leave, how many are left/left over? difference between. <br> Estimate, rounding. <br> MONEY coin, note, price, cost, spend, spent, pay, change, dear, costs more, more/most expensive, cheap, costs less, cheaper, less/least expensive, how much...? how many...? total, amount, value, worth, discount, profit, loss, currency. |  |  |
| :---: | :---: | :---: |
| Addition and Subtraction- Inverse operations <br> Day 1: missing number questionsstrategy to solve. <br> Day 2: <br> Using the inverse to check if correct. What number sentence would we need? Can we complete this? Are the answers the same <br> Day 3:Rising stars arithmetic number families- Using the correct operation to complete the family. Can we write all number sentences to complete the number family? Represent in other ways: part whole model, number family triangle, <br> Day 4: reasoning using inverse operations | Day 1: Mental addition - using hundreds board for support. <br> Day 2: LONGER MENTAL SKILLS SESSION Mental maths, no. bonds, times tables,facts \& vocab Number fans - timestables (2, 4, 5, 10) <br> Day 3: Arithmetic style questions on addition and subtraction. <br> Day 4: Mrs Carter's/ Mr Hancox's shop- rounding prices to the nearest 50p/£1 | Day 1: Word problems as of the Autumn Reasoning. q. 19 and 20. <br> Day 2: part-whole model to show working out and different ways to represent. <br> Day 3: Represent as bar models. Is it the same process? <br> Day 4: Continue as the lesson with reasoning. <br> Day 5: Continue as the lesson with problem solving. |

## Medium term Plan for Autumn Term Year 3 - Beecroft Primary School

|  | problem solving: completing 2 step <br> problems and checking the answer <br> using inverse ops |  |  |
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