ADDITION AND SUBTRACTION STRATEGIES Fredout



Black and White Version also included

ADDITION & SUBTRACTION Mental strategies	1
I can COUNT ITEMS	
Counting objects and identifying how many	
• Identifying which group has more • Identifying which group has more · Identifying which group has more	• Visualising covered objects and counting to find how many. (I, 2, 3, 4, 5. and then add I more. The answer is 6. • Visualizing covered objects and counting to find how many. 5 + I = ?
Using concrete objects and Fingers to add and subtract	
 Using one to one counting to match number words and c 	I can COUNT ON & BACK TO ADD/SUBTRACT Hold the bigger number in your head and count on to add or back to subtract
• Making numbers • Making numbers • Applying knowledge of 10 as a unit 8+25=33 63+32=0 $5+\frac{4}{2}$ $3=2-\frac{5}{3}$ 63+32=0 $3=2-\frac{5}{3}$ 63+32=0 $3=2-\frac{5}{3}$ 63+32=0 $3=2-\frac{5}{3}$	buck to subtract. $5 + 4 + 5 = 6, 7, 8, 4$ The answer is 7: Compensation 5 = 6, 7, 8, 4 The answer is 7: 0 = 9, 7 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 9, 7, 8, 4 The answer is 7: 0 = 0, 7, 8, 4 The answer is 7: 0 = 5, 4, 3 I counted back 3: 0 = 7, 5 = 9 0 = 10 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 0 = 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 0 = 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 0 = 1 = 2, 6 = 2, 6 = 2 = 4 0 = 10 0 = 1 = 2, 6 = 2, 6 = 2 = 4 0 = 1 = 2, 6 = 2 = 4 0 =

If this handout is useful, you might like to check out my Ninja Maths Bump It Up Posters!

RED NINJAS

Numeracy Learning Progressions. I can use objects and my fingers to add and subtract. subtract. a secone to one counting to match ber words and objects. 3 three I can manipulate and regroup place value of nun add 3-digit numbers and beyond eg 650 + 950 + 121 Regroup 450 as 600 and 50 50 + 550 + 600 bouble 600 + 820
 I can manipulate and regroup place value of numi subtract eg 3000 - 260 + 2740 can make numbers up to D using two can make numbers up to D using two roups poups make the numbers up to D using two i Can use non-count-by-one strategies to add and subtract. I can regroup for subtraction, including trading or
 the subtraction including trading or
 subtraction including trading or
 subtraction including trading or
 subtraction including trading or and use multiple strategies to tion and subtraction problems I can partition whole numbers up to ten. I can show that addition and subtraction are inverse operations. 2+4=6

6

Other FREE handouts that may be useful:

GAMES & ACTIVITIES TO build number Stills AT LIOME

GENERAL NUMBER SENSE ACTIVITIES

- Incidental counting e.g. how many buttons on your top, how many pegs to hang out the washing, how many animals in this book, how many red cars can we spot, how many houses can we count? Also getting children to count out groups of objects e.g. count out 5 apples for me.
- Counting Forward and backwards as you walk or drive places. Begin with counting Forward and backwards by Is. You could progress to counting Forward and backwards by 2s, 5s or IOs.
- Counting books and songs on YouTube.
- Number hunts- spot them in your environment e.g. on letterboxes, at the post office, in the shops.

- Board games- counting forward and backwards, recognising dot dice patterns.
- Grouping and sharing e.g. I have four jellybeans to share with you and your brother. How many will you both get?
- Use empty egg cartons to practise simple addition and subtraction.
- Building Numbers: use Lego, Duplo, blocks, rocks, beads, playdough or anything you like.
- Get Active- count the number of hops/skips/jumps, how many times
 can we throw the ball back and forth etc.

- DICE GAMES
 Whoever rolls the highest number wins the counter
 Dice Addition:

 Roll 2 dice and add together. Highest number wins a counter.
 Roll 3 dice and add together. Highest number wins a counter.
 Roll 4 dice and tarm into 2 sets of 2 digit numbers, then add together. E.g. doubles, Friends of 10).
 Roll 4 dice and turn into 2 sets of 2 digit numbers, then add together *E.g. 4 your onl a 5, 1 and 2, then your problem is 35 + 12*. Highest total wins the counter. Encourage the use of the most effective strategy.
 Race to Zero-Start with a certain number of points (e.g. 20, 50, 100).
- Race to Zero- Start with a certain number of points (e.g. 20, 50, 100). Take it in turn to roll the dice and subtract from your number. With larger totals, encourage children to use the most effective strategy.

CARD GAMES

- UNO Games to practise numeral ID, number words and counting groups of objects. Use playing cards or write onto flash cards.
- Snap
- Go Fish
- Memory
- Create Bingo boards with playing cards (e.g. 3 x 3 sets of cards)
 Card Flip- identify the number and highest number wins both cards
- Card Flip- identify the number and highest n
 Card Flip Addition
 - 2 cards- highest total wins all four cards
 - 3 cards- highest total wins all six cards. Encourage the use of the most effective strategy.
 - House effective strategy. 4 cards - turn into 2 sets of 2 digit numbers and then add together. Eg. If you turn over a 4.5, 2 and 6, then your problem is 45 + 26 Highest total wins all 8 cards. Encourage the use of the most effective strategy.
 - Card Flip addition with 2 or 3 cards- highest total wins all the cards- encourage the use of the most effective strategy.
 - Card Flip Subtraction • 2 cards- take away from the highest number. First to solve wins all the cards.
 - 3 cards- add the First two cards together and then take away the third. First to solve wins all the cards.
 - 4 cards- create two sets of 2 digit numbers and take the smaller number away. First to solve wins all the cards.

SUPPORTING YOUR CHILD AT HOME HANDOUT Early Literacy

I can COUNT HIDDEN ITEMS

• Visualising covered objects and counting to find how many.

I can COUNT ON & BACK TO ADD/SUBTRACT

- Hold the bigger number in your head and count on to add or back to subtract. 5 + 4: "5... 6, 7, 8, 9. The answer is 9".
 10 3 "10... 9, 8, 7. The answer is 7"
- Using numbers as completed counts when solving missing addend problems. 7 + ? = 10: "7... 8, 9, 10. The answer is 10"
 6 ? = 3 "6... 5, 4, 3. I counted back 3".

I CAN USE FLEXIBLE STRATEGIES TO TEN

• Using non count by one strategies to add/subtract

I can USE 2-DIGIT FLEXIBLE STRATEGIES

• Applying knowledge of IO as a unit to add and subtract numbers

• Manipulating tens and ones flexibly to add and subtract

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e.g. 45 + 37 = 82
Add tens to 45...55, 65, 75. Partition the 7 into 5 and 2. Add the 5 to make 80. Then to 2 to make 82.
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• Using part-whole knowledge of numbers to 20 to calculate 2 digit addition and subtraction e.g. 53-27 = 26Regroup 53 (40 and 13) and 27 (20 and 7) 40 - 20 = 20 | 3 - 7 = 6 20 + 6 = 26

I can USE 3-DIGIT FLEXIBLE STRATEGIES

- Flexibly use hundreds, tens and ones to add and subtract e.g. 250 + 457 = 707. Ungroup 250 into 2 hundreds, 5 tens. 457 + 200 = 657. Then 657 + 50 = 707.
- Manipulate and regroup place value of numbers to add 3-digit numbers and beyond
 e.g. 650 + 550 = 1200
 Regroup 650 as 600 and 50. 50 + 550 = 600. Double 600 = 1200.
- Manipulate and regroup place value of numbers to subtract

e.g. 3000 - 260 = 2740 Partition 3000 into 2700 and 300 for mental computation.

 Regroup for subtraction, including trading or exchanging units with different place values
 23/14

34 - 17 = 17 Make the 4 larger by trading a ten from the tens column.

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I CAN USE FLEXIBLE STRATEGIES TO TEN

Using non count by one strategies to add/subtract Ma MA 2 + 2 = 4 7 + 5 = ? 9 + 1 = 103 + 3 = 67 + 3 = 10 7 + 3 = 10 10 + 2 = 12**DOUBLES &** 4 + 4 = 8FRIENDS OF BRTDGE TO 6 + 4 = 10NEAR DOUBLES TEN Ю Partitioning whole numbers up to 10 6+1 4 + 37 equals... 5 + 2 3 + 2 + 1Recognising inverse operations for addition/subtraction 2 + 4 = 6ADDITION C SUBTRACTION 6-4=2 6-2=4 miss Loarning Bee

I can USE 2-DIGIT FLEXIBLE STRATEGIES

• Applying knowledge of IO as a unit to add and subtract numbers 8 + 25 = 22 (3 + 29 = 42)

• Manipulating tens and ones flexibly to add and subtract

e.g. 45 + 37 = 82 Add tens to 45... 55, 65, 75. Partition the 7 into 5 and 2. Add the 5 to make 80. Then to 2 to make 82.

• Using part-whole knowledge of numbers to 20 to calculate 2 digit addition and subtraction e.g. 53-27 = 26 Regroup 53 (40 and 13) and 27 (20 and 7) 40 - 20 = 20 13 - 7 = 6 20 + 6 = 26

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*4*3/H <u>|7</u> |7

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