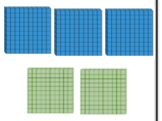
Templars Primary School – Knowledge Organiser

Year 3 Addition and Subtraction

Key Vocabulary

- altogether
- difference
- mental calculation
- columnar
- hundreds
- boundary
- regrouping
- inverse
- derived
- exchange
- place value
- estimate

Add and subtract multiples of 100

Draw It	Write It	Part-Whole	Number Sentence
	3 hundreds and 2 hundreds is equal to 5 hundreds	500 (300, 200)	300 + 200 = 500

600	
200	400

200 + 400 = 600
400 + 200 = 600
600 – 200 = 400
600 – 400 = 200

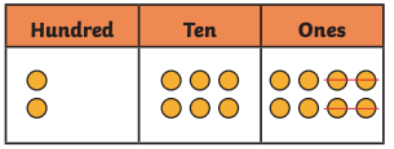
5 ones + 2 ones = 7 ones
5 tens + 2 tens = 7 tens
5 hundreds + 2 hundreds = 7 hundreds

3 + 1 = 4
30 + 10 = 40
300 + 100 = 400

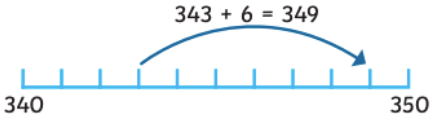
Add and subtract 3-digit and 1-digit numbers

Not crossing 10s

268 – 4 = 264

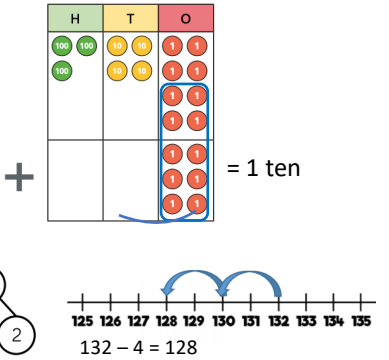


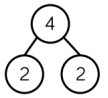
343 + 6 = 349



Crossing 10s (Exchanging)

346 + 6 = 354

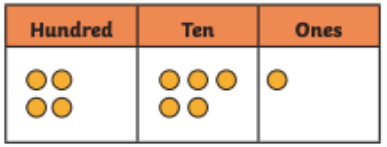




132 – 4 = 128

Add and subtract 3-digit and 2-digit numbers

Add and subtract



451 + 3 tens = 481
451 – 4 tens = 411

Remember: When adding tens, only the tens digit changes unless we cross a 100 boundary

Crossing 10s (Exchanging)

258 + 80 = 338

- Column method

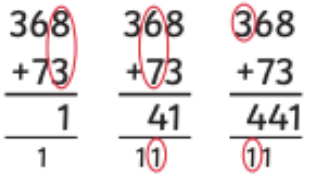
	2	5	8
+		8	0
	3	3	8
		1	

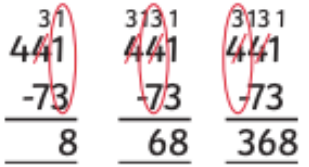
- Count in 10s mentally
- Add 100, subtract 20

258 + 100 = 358
358 – 20 = 338

Using the column method

When using the column method, always start by adding the right-hand column first.



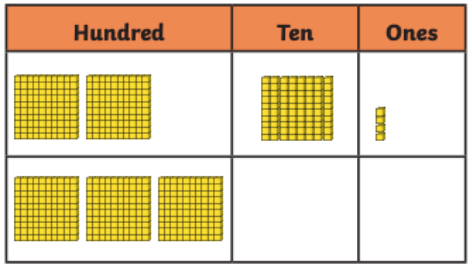


If a column adds up to 10 or more, carry the ten into the next column

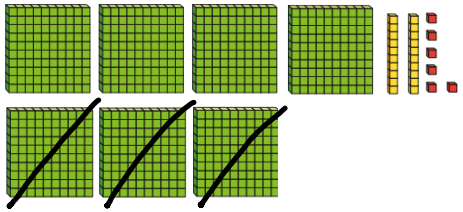
If the top digit is smaller than the bottom digit, exchange from the next column.

Add and subtract 100s

284 + 300 = 584



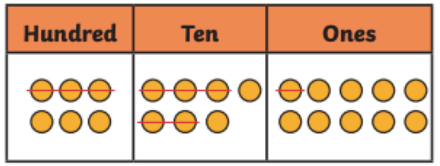
726 – 300 = 426



3-digit numbers

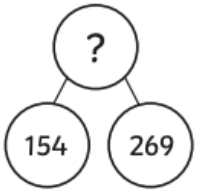
Not crossing

679 – 351 = 328

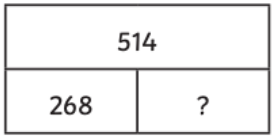


	4	5	3
+	4	3	6
	8	8	9

Crossing 10s (Exchanging)



$$\begin{array}{r} 269 \\ +154 \\ \hline 423 \\ \hline 11 \end{array}$$



$$\begin{array}{r} 4\,10\,1 \\ 5\not{1}4 \\ -\ 268 \\ \hline 246 \end{array}$$

Column addition steps to success

1. Add the ones (9 + 4 = 13)
2. If the answer is 10 or more, carry the tens digit over to the tens column
3. Add the tens (6 + 5 + 1 = 12)
4. If the answer is 10 or more, carry the tens digit over to the hundreds column
5. Add the hundreds (2 + 1 + 1)

Column subtraction steps to success

1. Check that the ones can be subtracted (4-8). The top digit is less than the digit we are subtracting so we need to exchange
2. Exchange 1 ten for 10 ones
3. Subtract the ones (14 – 8 = 6)
4. Check that the tens can be subtracted (0-6). 0 is less than 6 so we need to exchange.
5. Exchange 1 hundred for 10 tens
6. Subtract the tens (10 - 6 = 4)
7. Subtract the hundreds (4– 2 = 2)

Estimate

Estimate means an approximate guess. We use estimating as a way of checking that our answer is correct.

Estimate by dividing the hundred into 250 and 225.

Estimate 10s (330, 340) between 325 and 350.

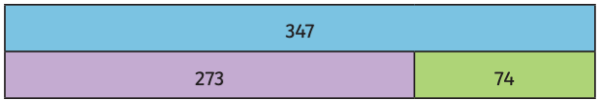
Estimate 167 – 89

Use **near numbers** – 170 - 90 = 80

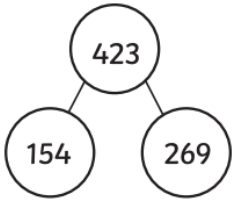
When we have calculated the answer to the question, our answer should be near to 80.

Check answers

We can **check** answers to our calculations by using **the inverse**. **Bar models** and **part-whole models** can help us understand the inverse.



347 – 74 = 273 can be checked using 273 + 74 = 347



154 + 269 = 423	269 + 154 = 423
423 – 154 = 269	423 – 269 = 154