



Maths Knowledge Organiser

Year 3: Addition and Subtraction

Prior Knowledge (Y2 Unit 2, 3)

- Use related number facts
- Compare number sentences
- Make number bonds to 100
- Add and subtract ones and tens
- Add a 2-digit and a 1-digit number
- Subtract a 1-digit number from a 2-digit number

Structures and Representations

Place Value Grid

H	T	O

Part-whole Model

Bar Model

- Addition
- Subtraction
- Mental method
- Column method
- Exchange

Add 3-digit and 1-digit numbers

Start with the largest number (343) and count on how much is being added (6). The answer is the number that is reached.

$343 + 6 = 349$

With exchanging

$316 + 8 = 324$

316	8

Subtract 3-digit and 1-digit numbers

Start from the ones, subtract each column in turn.

$268 - 4 = 264$

Hundred	Ten	Ones

With exchanging

$145 - 8 = 137$

H	T	O



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3-digit numbers and 2-digit numbers

Add and subtract tens

Hundred	Ten	Ones

$451 + 3 \text{ tens} = 481$ ($5 + 3 = 8$)

$451 - 4 \text{ tens} = 411$ ($5 - 4 = 1$)

Crossing 10s (Exchanging)

$258 + 80 = 338$

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

Crossing 10 and 10

368	368	368
$+73$	$+73$	$+73$
1	41	441
1	11	11

441	441	441
-73	-73	-73
8	68	368

Add/Subtract 100s

Add and Subtract 100s

$284 + 300 = 584$

Hundred	Ten	Ones

3-digit numbers

Not crossing

$679 - 351 = 328$

Hundred	Ten	Ones

Crossing 10s (Exchanging)

?

154

269

269

$+154$

423

11

514	
268	?

4101

514

-268

246

Links to Derby and Careers

Links to Derby

- Rolls Royce
- Bombardier

Links to Careers

- Accounting
- Finance
- Trader
- Scientist
- Store assistant
- Teaching

Estimating

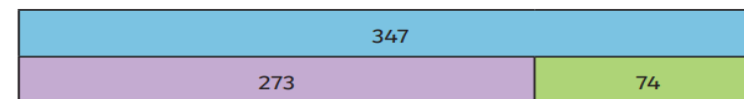
Estimate $167 - 89$

Use near numbers $170 - 90 = 80$

Near numbers:

413	279	521	782
↓	↓	↓	↓
400	300	500	800

Checking Strategies



$347 - 74 = 273$ can be checked using

$273 + 74 = 347$

This part whole shows the inverse calculations using these three numbers.



$154 + 269 = 423$	$269 + 154 = 423$
$423 - 154 = 269$	$423 - 269 = 154$