Maths Planning and Ideas

Week Commencing: Monday 12. 10. 2020

Year Group: Year 3

	Monday	Tuesday	Wednesday	Thursday	Friday
Area of Learning	LC: Can you Subtract a 1-digit number from a 3-digit number - crossing 10?	LC:Can you add and subtract 3-digit and 2-digit numbers - not crossing 100?	LC: Can you Add 3-digit and 2-digit numbers - crossing 100?	LC: Can youSubtract a 2-digit number from a 3-digit number - crossing 100	LC: Can you problem solve?
Activity	**Starter:** Times Table Rockstars **Main:** Go to the following website: https://whiterosemaths.com/ Find and watch **Subtract a 1-digit number from a 3-digit number - crossing 10** video. Pause if you need to take notes or replay sections to help with understanding. **Independent Task:** Children to complete worksheet found in resources.	**Starter:** Times Table Rockstars **Main:** Go to the following website: https://whiterosemaths.com/ Find and watch **Add and subtract 3-digit and 2-digit numbers - not crossing 100** video. Pause if you need to take notes or replay sections to help with understanding. **Independent Task:** Children to complete worksheet found in resources.	**Starter:** Times Table Rockstars **Main:** Go to the following website: https://whiterosemaths.com/ Find and watch **Add 3-digit and 2-digit numbers - crossing 100** video. Pause if you need to take notes or replay sections to help with understanding. **Independent Task:** Children to complete worksheet found in resources.	**Starter:** Times Table Rockstars **Main:** Go to the following website: https://whiterosemaths.com/ Find and watch **Subtract a 2-digit number from a 3-digit number - crossing 100** video. Pause if you need to take notes or replay sections to help with understanding. **Independent Task:** Children to complete worksheet found in resources.	**Starter:** Times Table Rockstars **Main:** Today the children will apply the skills they have learnt this week to reason and problem solve questions. **Independent Task:** Children to complete worksheet found in resources.

Where can I complete further work?

Twinkl – Subscription service used by schools is offering a free premium service for teachers, parents and children to use whilst schools are closed. Enter the code **UKTWINKLHELPS** for access to worksheets, powerpoints and interactive games to support all areas of learning.

Classroom Secrets – Free Maths, Reading and Grammar home learning packs and interactive resources for all ages.

White Rose Maths – Free Maths home learning resources for all ages. Watch the videos and try the questions.

Primary Stars – Free Maths home learning packs for Year 1 and 2.

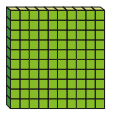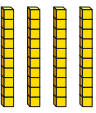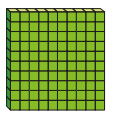BBC Bitesize Primary – Free learning resources available for KS1 and KS2 across all subjects.

I See Maths – Free daily home maths lessons hosted by Gareth Metcalfe. Follow the link for videos, information and resources.

Top Marks – Free educational resources and games for English and Maths.

ICT Games – Free educational resources and games for English and Maths.

Subtract a 1-digit number from a 3-digit number – crossing 10

1

H	T	O

a) Work out 245 – 3

Explain your method to a partner.

b) Work out 245 – 8

Talk to your partner about the method you used.

Did you do anything different this time?

2

H	T	O
100 100 100	10	1

Work out 311 – 7

3 Tick the calculations that include an exchange.

a)

273 – 2 ☐   273 – 5 ☐   273 – 8 ☐
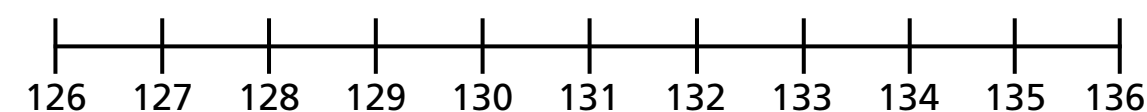
b)

395 – 8 ☐   395 – 1 ☐   395 – 5 ☐

c)

412 – 7 ☐   412 – 6 ☐   412 – 3 ☐

4 Complete the number sentences.

Use two jumps on the number lines.

a) 135 – 8 = ☐

126 127 128 129 130 131 132 133 134 135 136

b) 422 – 7 = ☐

413   423

c) 251 – 9 = ☐

241   251
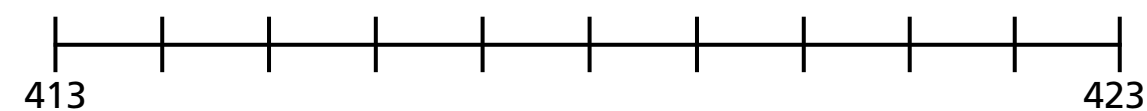
5 A baker bakes 223 loaves of bread.
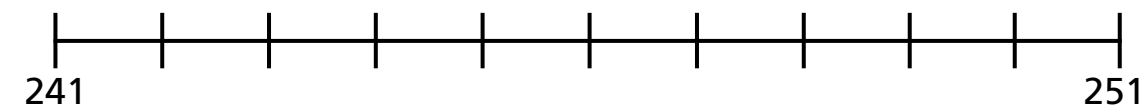
He eats 6 loaves of bread.

How many loaves of bread does he have left?

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┌─────────┐
│         │
└─────────┘
```

6 Complete the number sentences.

a) 315 − 7 = ☐   **d)** ☐ = 671 − 3

b) 662 − 9 = ☐   **e)** 829 − 7 = ☐

c) ☐ = 471 − 3   **f)** 827 − 9 = ☐

7 Complete the calculations.

a) 524 − ☐ = 521   **b)** 18_ − 5 = 183

524 − ☐ = 519   18_ − 5 = 178

524 − ☐ = 517   18_ − 5 = 175

8 The answer is 507

a) Whose subtraction is correct?

512 − 9   515 − 8

Mo   **Dexter**

_____

b) What mistake has the other child made?

9 How many different ways can you complete this calculation?

36_ − ☐ = 357

_____

_____

_____

10 Complete the number sentences.

a) 623 − 7 = 613 + ☐   **c)** 515 − ☐ = 501 + 7
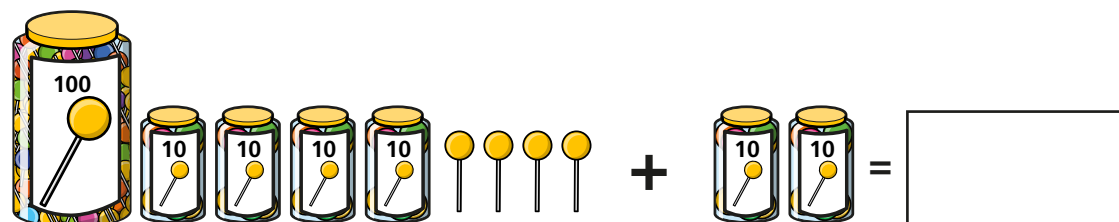
b) 125 + 2 = 130 − ☐   **d)** 300 − 8 = ☐ + 2

Add and subtract 3-digit and 2-digit numbers – not crossing 100

1 How many lollipops are there in total?

100   10 10 10 10   +   10 10   = ☐

2 Eva has made this number.

Hundreds	Tens	Ones

a) What number has Eva made? ☐

b) Eva subtracts 40 from her number.

Write a subtraction to show what Eva has done.

☐ – ☐

c) What is the answer to the subtraction? ☐

3 Complete the additions.

a) ☐ + ☐ = ☐

b) ☐ + ☐ = ☐

c) ☐ + ☐ = ☐

4 Use base 10 to help you complete the number sentences.

a) 146 + 30 = ☐

b) 146 − 30 = ☐

c) 146 + 50 − 50 = ☐

5 Use the place value chart to help you complete the number sentences.

H	T	O

a) 742 + 30 = ☐   **b)** 742 − 30 = ☐

c) 742 + 50 = ☐

e) 20 + 742 = ☐

d) 742 − 20 = ☐

f) ☐ = 742 − 40

6 Complete the calculations.

a) 717 + 30 = ☐   717 + 60 = ☐

717 + 40 = ☐   80 + 717 = ☐

What do you notice?

b) 182 − 30 = ☐   282 − 30 = ☐

587 − 30 = ☐   380 − 30 = ☐

What do you notice?

7 Here is a subtraction.

487 − 50 = 482

What mistake has been made?

8 Complete the number sentences.

a) 196 − 30 = ☐   **g)** ☐ = 827 + 20

b) 241 + 40 = ☐   **h)** 487 − ☐ = 417

c) 511 − 10 = ☐   **i)** 392 − ☐ = 302

d) 725 + 50 = ☐   **j)** ☐ + 50 = 277

e) 60 + 927 = ☐   **k)** ☐ + 913 = 953

f) ☐ − 40 = 255   **l)** 429 − ☐ = 429

9 Here is a calculation with three missing digits.

$$726 + \_0 - \_0 = 7\_6$$

All the missing digits are different.

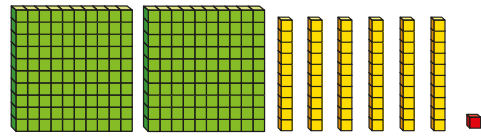What could the calculation be?

How many calculations can you find?

_____

_____

_____

1 Use base 10 to help you complete the additions.

a) 261 + 10 = [ ]

c) 261 + 30 = [ ]

b) 261 + 20 = [ ]

d) 261 + 40 = [ ]

What do you notice?

2 Complete the additions.

a)

+ = [ ]

b)

+ = [ ]

3 Complete the number sentence.

Use the place value chart to help you.

369 + 70 = [ ]

H	T	O
100 100	10 10	1 1
100	10 10	1 1
	10 10	1 1
		1 1
		1
	10 10	
	10 10	
	10 10	
	10	

4
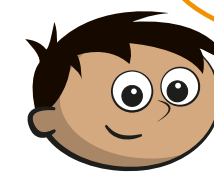
When you add 5 tens to a 3-digit number, only the tens column changes.

Write three examples to show Amir is wrong.

_____

_____

_____

5 Complete the number sentences.

a) 452 + 70 = ☐

b) 692 + 60 = ☐

c) 357 + 70 = ☐

d) 84 + 70 = ☐

e) 30 + 784 = ☐

f) ☐ = 712 + 90

g) 171 + 50 + 20 = ☐

h) 256 + 50 + 30 = ☐

6 Complete the number sentences.

349 + ☐ = 429

339 + ☐ = 429

359 + ☐ = 429

☐ + 399 = 429

7 Work out the missing digits.

a) 772 + _0 = 812

772 + _0 = 822

772 + _0 = 852

b) 3_4 + 60 = 454

3_4 + 60 = 444

3_4 + 60 = 414

8 a) What is the smallest possible missing digit?

773 + _0 > 820

b) What is the smallest possible missing digit?

773 + _0 > 824

c) What is the greatest possible missing digit?

773 + _0 < 824

9 A barrel contains 175 litres of water.

175 litres

2 buckets of water are poured into the barrel.

0 litres   0 litres

There is now 265 litres of water in the barrel.

How much water could have been in each bucket?

How many different answers can you find?

_____

_____

1 Use base 10 to make the number 235

a) Complete the subtraction.

235 − 20 = ☐

b) Complete the subtraction.

235 − 30 = ☐

c) Show how you can work out 235 − 50 using base 10

Talk to a partner about how you did it.
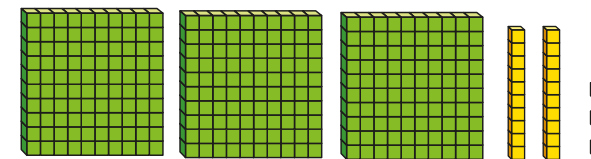
d) Complete the number sentences.

235 − 50 = ☐

235 − 70 = ☐

235 − 90 = ☐

2 Complete the number sentences.

a) 323 − 60 = ☐

b) 712 − 40 = ☐

H	T	O
100 100	10	1 1
100 100		
100 100		
100		
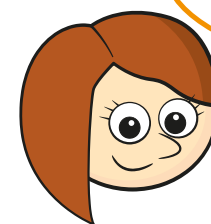
3 You can't subtract 70 from 624 as there aren't enough tens.

H	T	O
100 100	10 10	1 1
100 100		1 1
100 100		

Rosie is wrong.

How do you know?

_____

_____

_____

4 Complete the number sentences.

a) 720 − 60 = [ ]

e) 716 − 50 = [ ]

b) 338 − 40 = [ ]

f) [ ] = 528 − 90

c) 248 − 60 = [ ]

g) 319 − 20 = [ ]

d) 937 − 50 = [ ]

h) 703 − 80 = [ ]

5 The answer to each of these subtractions is 358

Find the possible missing digits.

4_8 − _0 = 358

4_8 − _0 = 358

4_8 − _0 = 358

4_8 − _0 = 358

4_8 − _0 = 358

6 Nijah is working out 524 − 80 in her head.

She says the answer is 464

What mistake do you think Nijah has made?

Talk to a partner.

7 Complete the calculations.

a) 758 − [ ] = 708

e) 163 = 253 − [ ]

b) 612 − [ ] = 532

f) [ ] − 80 = 341

c) 129 − [ ] = 69

g) [ ] − 70 = 603

d) 807 − [ ] = 777

h) [ ] − 40 − 30 = 448

8 Amir is thinking of a number.

If I subtract 20
I don't have to make an exchange.
If I subtract 70 I have to make
1 exchange.
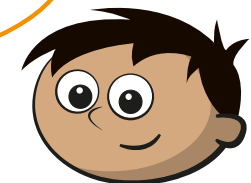
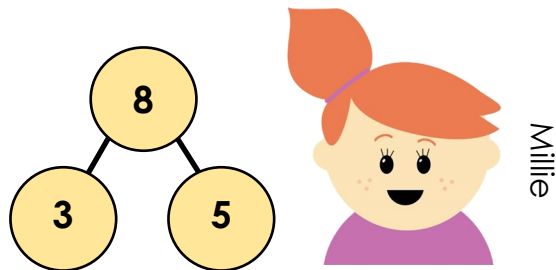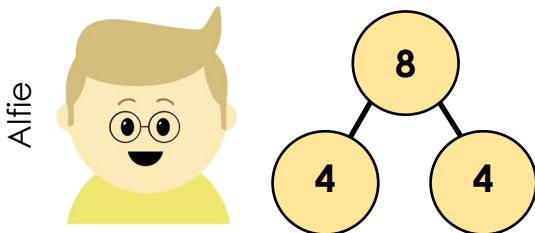How many tens could Amir's number have?

Give reasons for your answer.

_____

_____

_____

SUBTRACT 1-DIGIT FROM 3-DIGITS - CROSSING TENS

REASONING 1

The children used partitioning to solve the calculation:

643 - 8

Alfie

8
4   4

Millie

8
3   5

Who has used partitioning in the best way?

Explain how you know.

REASONING 2

Jerry thinks...

459 - 8 =
is easier to work out than...
306 - 8 =

Do you agree? Explain why!

REASONING 3

Which is the odd one out?

451 - 3   **239 - 7**   **546 - 8**

Convince me!

REASONING 4

Always, Sometimes, Never?
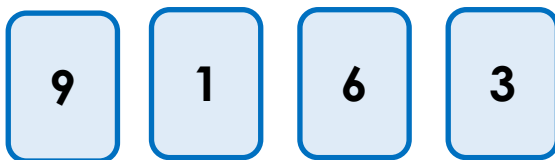
**Only the ones column changes when
we subtract ones.**

PROBLEM SOLVING 1

Investigate!
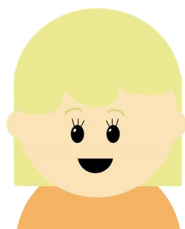
Can you use these digit cards to make a calculation with an answer of 385?

| 9 | 1 | 6 | 3 |

☐☐☐ — ☐ = **385**

PROBLEM SOLVING 2

Investigate!

When 9 is subtracted from 4 in the ones column, the digit in the ones column of the answer will always be 5.

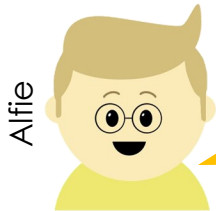Can you collect examples to prove that this statement is correct?
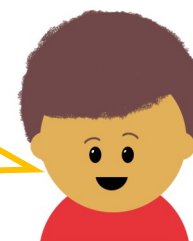
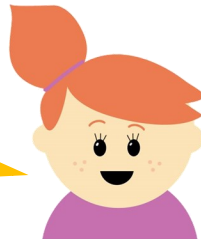# ADD AND SUBTRACT 3-DIGIT AND 2-DIGIT NUMBERS

REASONING 1

The children are using known facts to help them solve this:

376 - 50

Alfie

I have used 7 - 5 = 2

I have used 6 - 5 = 1

Millie

Who is using the correct known fact?

Explain how you know.

REASONING 2

True or false?

167 - 30 = 137 + 60

REASONING 2

Anita thinks she has spotted a pattern to her calculations.

197 - 90 = _____

197 - 80 = _____

197 - 70 = _____

I think the tens digit will decrease by 1 each time.

Do you agree? Explain how you know.

REASONING 3
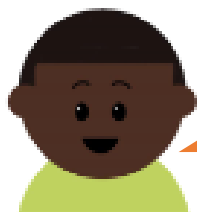
Which could be the odd one out?

261 + 20   251 + 30   261 + 40

Explain why!

PROBLEM SOLVING 1

Whoops! I've spilt paint on some of the numbers. Can you work out what they might be?

5⬛ + ⬛0 = 531

2⬛ - ⬛0 = 287