Subtraction Prior Learning Assessment Question 1

Objective: I can subtract ones from a three digit number.

NAS1: add and subtract numbers mentally, including:
a three-digit number and ones.

Assessment Question 1:

Prior Learning:

123
Number • Place Value

Question 1:
I can subtract ones from a 3 digit number.

I feel

Work out the answer to these subtraction sums.

a) 115 - 1 = ☐

b) 195 - 4 = ☐

c) 267 - 5 = ☐

d) 220 - 1 = ☐

e) 113 – 6 = ☐

f) 242 - 7 = ☐

Input ideas:

- Place a group of objects in the middle of a class circle. Ask the children to estimate how many objects are there. Inform the children of the amount (such as 134). Children to take it in turns to come and take an object away one at a time to encourage the children count backwards. Stop at different points to discuss what is happening to different digits as we count back? Why? This could also be modelled alongside a place value chart to show the children what is happening as we take objects away. Record down the different sums that have been created. Such as 134-2 = 132, 102-5 = 97.
- Use a hundred square (such as in the activity section or the ones provided below). How will this help us? Model counting back 6 for 132- 6. What has happened to the digits in the number? Why? Some children may prefer counting back using hundred squares and some children may be ready to mentally count back crossing boundaries of ten and hundred.

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	217	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300

Practice Activities

Purple Practice: most suited for children who show misconceptions in question 1 a, b and c of the prior learning assessment.

The purple activity will support children who are still securing counting beyond 100 and will encourage them to count back from different 3 digit numbers. The children are provided with number grids from one hundred to two hundred and two hundred to three hundred to help secure the crossing of boundaries and counting. Once the children have completed these, they are presented with sums at the end of each sheet to answer based on counting back in ones from a 3 digit number below 400.

There are 3 sheets provided to encourage the children to explore 3 digit numbers up to 400. You may want to select the most appropriate sheet using the children's needs or split these over more than one lesson.

Green Practice: most suited for children who have demonstrated errors in Question 1 d, e and f and need to secure crossing a boundary of ten.

For this activity the children are provided with number grids from 100 to 200 and 200 to 300 to support them with working out the answers to the questions at the bottom of the task. . Firstly the children are asked to fill in the missing boxes in the hundreds square. Ensure the children can work out what the next number is and understand how the number squares are structured.

At the bottom of each sheet the children are provided with sums where they are to subtract ones. When the ones are subtracted, the children are required to cross a boundary of ten. The children can use the hundreds square to help them to count back.

Yellow Practice most suited for children who can count back in ones and show accuracy in Question 1 of the prior learning.

The children are required to subtract 2 amounts; a 3 digit number and a 1 digit number. The children are to calculate the answer using mental strategies and are to become less reliant on place value charts and hundred squares. Encourage the children to count back in ones and also begin to understand that they can use their knowledge of number relationships to subtract chunks of numbers. For example: 205 -6 = 199 the children may suggest 205 -5 = 200 and then one less is 199, using their knowledge of number bonds.

Mastery: Investigate and Fluency

For this activity the children are provided with the answer for each sum and they are to suggest 3 numbers to place in the blank boxes to make the subtraction sum correct. Encourage the children to explore different numbers that can be placed in the boxes. Some children may begin to notice the different types of numbers they are subtracting and explore different combinations. As a challenge, the children are to try to use a different number in each box.

Key questions:

- What numbers have you subtracted? Why have you chosen these?
- What do you notice? How does this help you with your next choice of numbers?
- Is there another combination of numbers that you can use?

Answers:

Purple activity 1 :

2a) 105	2b) 116	2c) 121	2d) 138
2e) 152	2f) 161	2g) 182	2h) 198

Purple activity 2 :

2a) 206	2b) 218	2c) 221	2d) 131
2e) 252	2f) 265	2g) 276	2h) 293

Purple activity 3 :

2a) 313	2b) 325	2c) 332	2d) 356
2e) 383	2f) 372	2g) 361	2h) 391

Green activity 1 :

2a) 109	2b) 119	2c) 124	2d) 129
2e) 135	2f) 143	2g) 160	2h) 177

Green activity 2 :

2a) 203	2b) 208	2c) 217	2d) 228
2e) 244	2f) 257	2g) 269	2h) 276

Green activity 3 :

2a) 297	2b) 393	2c) 299	2d) 306
2e) 319	2f) 380	2g) 387	2h) 368

Yellow:

2a) 108	2b) 125	2c) 122	2d) 187
2e) 178	2f) 185	2g) 199	2h) 208
2i) 218	2j)317	2k)355	2l) 387

Mastery:

Explore the children's answers as a class, in groups or pairs.

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Purple Activity 1

LO: I can count back in ones from a 3 digit number.

1) Fill in the missing squares below on the hundred square for numbers between 100 and 200.

101		103		105		107		109	
	112		114	115	116		118		120
121	122	123	124	125					130
131		133		135	136	137	138		140
	142	143		145	146	147		149	
151	152		154					159	160
161									170
171				175	176		178		
181	182	183		185			188		190
	192	193		195				199	

2) Use the grid to answer these questions:

a) 109 - 4 =

b) 117- 1 =

c) 124 - 3 =

d) 138 - 0 =

e) 154 - 2 =

f) 168 - 7 =

g) 185 - 3 =

h) 199 - 1 =

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Purple Activity 2

LO: I can count back in ones from a 3 digit number.

1) Fill in the missing squares below on the hundred square for numbers between 200 and 300.

201	202	203		205		207		209	210
211		213	214		216		218	219	220
			224	225		227			230
231							238		240
241	242			245	246				
	252			255			258		
		263	264		266	267		269	
271				275				279	
281	282					287			290
291				295				299	

2) Use the grid to answer these questions:

208 – 2 =

219 - 1 =

225 – 4 =

237 - 6 =

256 - 4 =

267 - 2 =

279 - 3 =

298 - 5 =

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Purple Activity 3

LO: I can count back in ones from a 3 digit number.

1) Fill in the missing squares below on the hundred square for numbers between 300 and 400.

301	302	303		305	306			309	310
311									320
321			324		326		328	329	
331		333		335		337			340
	342				346				350
			354					359	
361		363		365			368		
					376				380
	382							389	
391		393		395		397			400

2) Use the grid to answer these questions:

317 – 4 =

328 - 3 =

336 – 4 =

359 - 3 =

384 – 1 =

372 - 0 =

367 - 6 =

395- 4 =

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Green Activity 1

LO: I can count back in ones when crossing a ten.

1) Fill in the missing squares below on the hundred square for numbers between 100 and 200.

101	102	103	104	105		107			110
111				115				119	120
121		123			126		128		
	132	133	134		136	137		139	140
141		143		145			148		
	152			155			158		
161			164			166		169	
	172	173	174		176	177		179	180
181			184				188		
191	192			195		197		199	

2) Use the grid to answer these questions:

a) 112 - 3 =

b) 125 - 6 =

c) 131 - 7 =

d) 134 - 5 =

e) 140 - 5 =

f) 152 - 9 =

g) 165 - 5 =

h) 184 -7 =

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Green Activity 2

LO: I can count back in ones when crossing a ten.

1) Fill in the missing squares below on the hundred square for numbers between 200 and 300.

201		203			206			209	210
211	212	213	214			217	218		
221	222		224		226			229	
	232						238		
241		243	244		246	247	248		250
251		253		255					
				265	266	267			270
				275				279	
281			284		286	287	288		290
291	292	293		295			298		

2) Use the grid to answer these questions:

a) 210 – 7 =

b) 214 – 6 =

c) 226 - 9 =

d) 232 - 4 =

e) 251 - 7 =

f) 263 – 6 =

g) 270 – 1 =

h) 284 - 8 =

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Green Activity 3

LO: I can count back in ones when crossing a ten.

1) Fill in the missing squares below on the hundred square for numbers between 300 and 400.

311		313		315		317		319	
	322		324		326			329	330
331	332			335		337			340
		343			346		348		
351	352	353		355			358		360
	362								
371			374			377		379	380
	382	383		385	386		388		
391			394					399	400

2) Use the grid to answer these questions:

301 - 4 =

400 - 7 =

305 - 6 =

315 - 9 =

324 - 5 =

388 - 8 =

395 - 8 =

376 - 8 =

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Yellow Activity

LO: I can find ways to subtract chunks of ones quickly.

1) Answer the question on each block.

Tips

Can you subtract one?
Can you subtrcat chunks of ones?
How can your knowledge of number bonds and doubles help?

a) 111 – 3 =

b) 132- 7 =

c) 130 – 8 =

d) 191 - 4 =

e) 185 - 7 =

f) 191 - 6 =

g) 204 – 5 =

h) 216 - 8 =

i) 224 – 6 =

j) 323 - 6 =

k) 360 – 5 =

l) 394 - 7 =

2) Discuss how you have worked out each sum. What strategies have you used?

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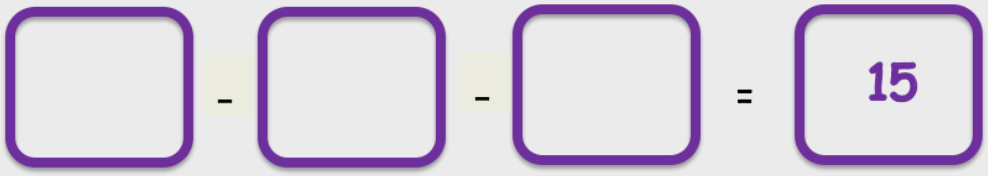
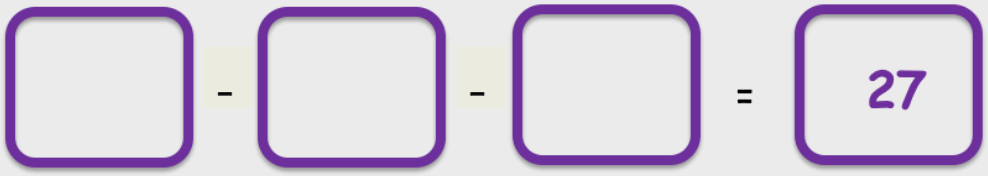
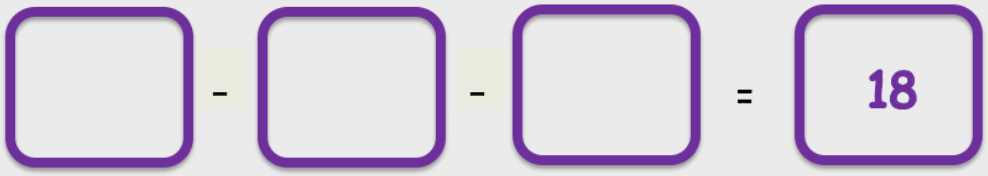
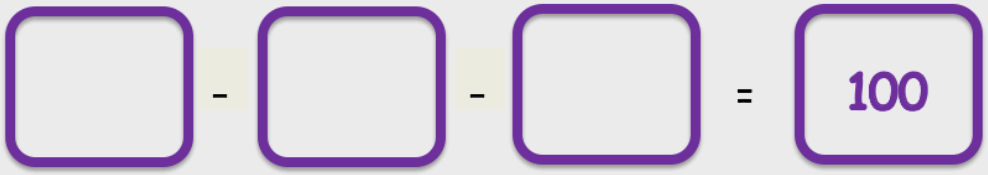
Mastery

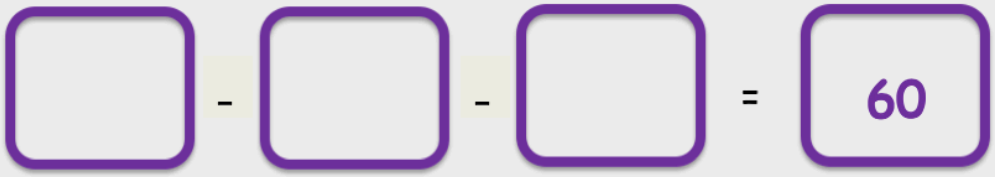
Find numbers to place in each box to make the sum correct.











Challenge: You **cannot** use the same numbers twice.