Reasoning and Problem Solving
Step 6: Compare Numbers

Teaching note: Inequality symbols are included in this step as they were introduced in Block 1 Step 10. These can be used as a visual aid to improve fluency as children continue comparing numbers and amounts.

National Curriculum Objectives:

Mathematics Year 1: (1N2c) Read and write numbers from 1 to 20 in numerals and words
Mathematics Year 1: (1N4) Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
This resource also covers the following objective from Year 2:
Mathematics Year 2: (2N2b) Compare and order numbers from 0 up to 100; use <, > and = signs

Differentiation:

Questions 1, 4 and 7 (Problem Solving)
Developing Solve a simple word problem by determining which numbers are more or less than two given numbers up to 10. Pictorial support using objects. Numbers presented in numerals.
Expected Solve a simple word problem by determining which numbers are more or less than two given numbers up to 20. Pictorial support using Base 10. Numbers presented in numerals and words.
Greater Depth Solve a simple word problem by determining which numbers are more or less than two given numbers up to 20. Numbers presented in numerals and words and some numbers are partitioned.

Questions 2, 5 and 8 (Problem Solving)
Developing Restructure a number line and identify start or finish up to 10. Pictorial support using Numicon. Numbers presented in numerals.
Expected Restructure a number line and identify start or finish up to 20. Pictorial support using Base 10. Numbers presented in numerals and words.
Greater Depth Restructure a number line and identify start or finish up to 20. Numbers presented in numerals and words and some numbers are partitioned.

Questions 3, 6 and 9 (Reasoning)
Developing Read two statements comparing numbers to 10. Explain which statement is correct and why. Pictorial support using counters. Numbers presented in numerals.
Expected Read two statements comparing numbers to 20. Explain which statement is correct and why. Pictorial support using Base 10. Numbers presented in numerals and words.
Greater Depth Read two statements comparing numbers to 20. Explain which statement is correct and why. Numbers presented in numerals and words and some numbers are partitioned.

More Year 1 Place Value resources.

Did you like this resource? Don't forget to review it on our website.

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Compare Numbers

1a. Mia has 4 gems. Jon has 8 gems. Mat has more gems than Mia but less gems than Jon.

Mia | Mat | Jon

Mia	Mat	Jon
4	?	8

How many gems could Mat have?

D PS

Compare Numbers

1b. Kat has 2 plums. Ria has 7 plums. Ann has less plums than Ria but more plums than Kat.

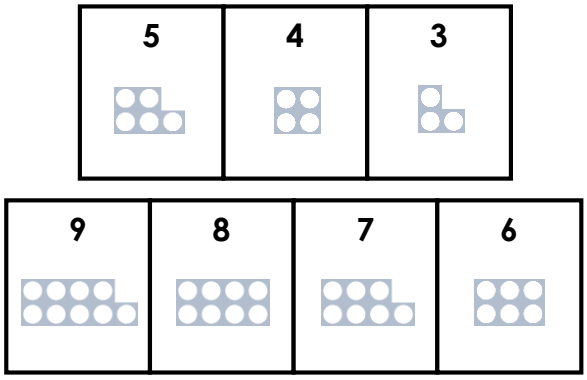
Kat | Ria | Ann

Kat	Ria	Ann
2	7	?

How many plums could Ann have?

D PS

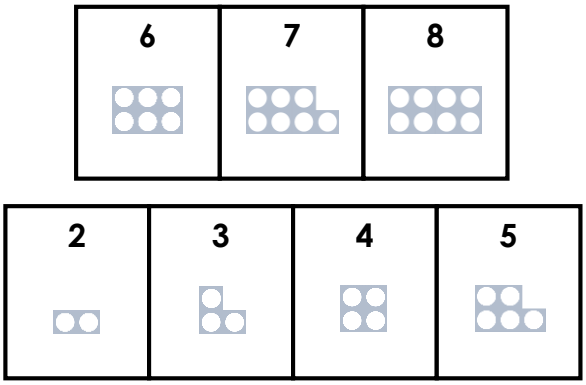
2a. Olly has cut up his number track.



Which number did his number track start with?

D PS

2b. Tia has cut up her number track.

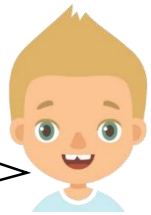


Which number did her number track finish with?

D PS

3a. Anya and Ben are comparing the numbers 1 ● and 10 ● ● ● ● ● ● ● ● ● ●

Anya: The numbers are equal because they both have a 1.

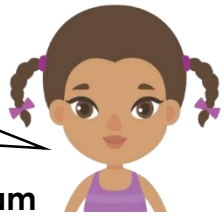


Ben: 10 is the bigger number because you start counting from 1.

Who is correct?
Explain how you know.

D R

3b. Sam and Max are comparing the numbers 5 ● ● ● ● ● and 2 ● ●



Sam: 2 is smaller because 5 is 3 more than 2.

Max: The numbers are the same.

Who is correct?
Explain how you know.

D R

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Compare Numbers

4a. Sam has 9 sweets. Max has 17 sweets. Tom has more sweets than Sam but less sweets than Max.

Sam | Max | Tom

Sam	Max	Tom
9	17	?

How many sweets could Tom have?

E PS

Compare Numbers

4b. Mel has eleven jewels. Liv has sixteen jewels. Anya has less jewels than Liv but more jewels than Jess.

Anya | Mel | Liv

Anya	Mel	Liv
?	11	16

How many jewels could Anya have?

E PS

5a. Jess has cut up her number track.

13	twelve	eleven

17	sixteen	15	14

Which number did her number track start with?

E PS

5b. Ross has cut up his number track.

14	15	sixteen	17

18	19	twenty

Which number did his number track finish with?

E PS

6a. Kat and Raz are comparing the numbers 10 and 17.

Raz: 17 is bigger because 17 is seven more than ten.

Kat: 10 is bigger because 10 is bigger than 7.

Who is correct?
Explain how you know.

E R

6b. Pip and Joe are comparing the numbers 9 and 19.

Joe: 9 is equal to 19 because they both have the digit 9.

Pip: 19 is bigger because it is nearly 20 and 9 is less than ten.

Who is correct?
Explain how you know.

E R

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Compare Numbers

7a. Bella and Ria each have some colouring pencils. Joe has more than Bella but less than Ria.

Bella

Ria

Joe

Bella	Ria	Joe
1 ten and three ones	seventeen	?

How many pencils could Tom have?

GD

PS

Compare Numbers

7b. The numbers of stickers Ben and Anya have are shown. Pip has an even amount, more than Ben but less than Anya.

Ben

Anya

Pip

Ben	Anya	Pip
sixteen	one ten and nine ones	?

How many stickers could Pip have?

GD

PS

8a. Ava has cut up her number track.

14	13	twelve

18	1 ten and seven ones	sixteen	15

Which number did her number track start with?

GD

PS

8b. Nat has cut up his number track.

13	14	fifteen

9	ten	1 ten and 1 one	twelve

Which number did his number track finish with?

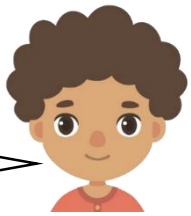
GD

PS

9a. Liv and Tom are comparing the numbers twelve and 9.

Liv

9 is bigger because 9 it has a nine in the ones column and twelve has the digit 2.


Tom

9 is smaller because it is less than ten and twelve has one ten.

Who is correct?
Explain how you know.

GD

R

9b. Mia and Ann are comparing partitioned numbers.

Mia

1 ten and three ones is bigger than 2 tens because 3 is more than 0.

Ann

Twenty is bigger than thirteen because it has two tens.

Who is correct?
Explain how you know.

GD

R

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Reasoning and Problem Solving
Compare Numbers

Developing

1a. 5, 6, or 7 gems
2a. 9
3a. Ben is correct. 1 is not equal to 10.

Expected

4a. 10, 11, 12, 13, 14, 15 or 16 sweets
5a. 17
6a. Raz is correct. 17 has got 7 ones in the ones column, whereas 10 has got zero. 17 is 7 more than 10.

Greater Depth

7a. 14, 15, or 16 pencils
8a. 18
9a. Tom is correct. 9 is a 1-digit number (less then 10).

Reasoning and Problem Solving
Compare Numbers

Developing

1b. 3, 4, 5, 6
2b. 8
3b. Sam is correct. Max has misread one of the numbers.

Expected

4b. 12, 13, 14 or 15 jewels
5b. 20
6b. Jo is correct. Although both numbers contain the digit 9, 19 has one ten, where as 9 less than 10.

Greater Depth

7b. 18 stickers
8b. 15
9b. Ann is correct. Thirteen has one ten; twenty has two tens.

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