Year 6 – Autumn Block 2 – Four Operations – Order of Operations

About This Resource:

This PowerPoint has been designed to support your teaching of this small step. It includes a starter activity and an example of each question from the Varied Fluency and Reasoning and Problem Solving resources also provided in this pack. You can choose to work through all examples provided or a selection of them depending on the needs of your class.

National Curriculum Objectives:

Mathematics Year 6: (6C9) Use their knowledge of the order of operations to carry out calculations involving the four operations

More **Year 6 Four Operations** resources.

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

Good morning, Year 6! It's Wednesday 20th May 2020. We are doing some revision of some work from Autumn today…

Part 1 - Fluency

WALT Calculate Order of Operations (BODMAS)
See my notes in green to help you.

Introduction

Complete the calculations as a bit of practice for some of what will come today.

A. $3^3 =$

B. $9^2 =$

C. 12 x 9 =

D. 48 + 27 =

E. 11 x 7 =

F. $8^2 =$

G. $5^3 =$

H. 159 – 78 =

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Complete the calculations.

A. 3^3 = **9**

B. 9^2 = **81**

C. 12 x 9 = **108**

D. 48 + 27 = **75**

E. 11 x 7 = **77**

F. 8^2 = **64**

G. 5^3 = **125**

H. 159 – 78 = **81**

A note about order of operations

Do you remember BODMAS? It's what we use to help us solve multistep number problems correctly.

B. Brackets (solve any bracketed bits first)

O. Orders (squares, cubes etc – solve these next)

D. M. Division and multiplication (equally important so read from left to right and do whichever you see first after brackets and orders)

A.S. Addition and subtraction (equally important so read from left to right and do whichever you see first after brackets, orders and division/multiplication)

Match the calculation to the correct answer.

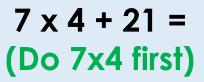|	
7 x 4 + 21 =	40
12 x 5 – 20 =	64
16 ÷ 2 x 8 =	49

Match the calculation to the correct answer. *Remember BODMAS*

7 x 4 + 21 = (Do 7x4 first)	**40**
12 x 5 – 20 = (Do 12x5 first)	**64**
16 ÷ 2 x 8 = (Do 16 ÷ 2 first)	**49**

Find the missing number.

$$3 + 28 \div \quad = 10$$

Find the missing number.

Because 28 ÷ 4 = 7, and 7 + 3 = 10

(I worked this out in my head by getting rid of the 3 all together; I took 3 away from the answer (10) to leave 7. Then I just had to work out how many 7s were in 28 to give me the missing number.

3 + 28 ÷ 4 = 10

Which calculation below gives the following answer?

68

(3 + 7) x 8 – 10

(16 + 2) x 4 – 2

10 x 7 – 2

8 x (10 – 2) + 2

Which calculation below gives the following answer?

68

(3 + 7) x 8 – 10	(16 + 2) x 4 – 2
3+7=10, 10x8=80, 80-10=70	*16+2=18, 18x4=72, 72-2=70*

10 x 7 – 2	8 x (10 – 2) + 2
Because 10x7=70 and 70-2=68	*10-2=8, 8x8=64, 64+2=66*

Add brackets to each calculation to make them correct. Remember that whatever is in brackets is calculated first.

$5 + 4 \times 11 = 99$

$12 \times 20 - 8 = 144$

$16 \div 2 \times 8 - 2 = 48$

Add brackets to each calculation to make them correct.

(5 + 4) x 11 = 99
In other words,
9X11=99

12 x (20 – 8) = 144
In other words,
12x12=144

16 ÷ 2 x (8 – 2) = 48
In other words 8X6=48

Well done! It's over to you now.

Go to Part 2 and choose your challenge! Normal rules apply: page 1 will give you an easier challenge, page 2 will be about the same as what we've just practised and page 3 will be more of a stretch.

You only need to do the first set of questions on your chosen challenge – the 'A' questions. If you want extra practice, you can then do the 'B' questions of your chosen challenge page. When you finish, don't forget to mark your answers before sharing, so I can see where you need help.