

Multiplication Prior Assessment Question 11

Objective: I can find multiples and common multiples of numbers

NC NDM1: identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers

Teacher Input Ideas:

- Introduce key word multiple and children to look in dictionaries at what the definition is. Set challenge to children to find as many multiples of a given number and share these together.
- Share a times table grid with the children and discuss how all the answers to the sums are multiples.
- Share 100 square and give children different numbers to find the multiples of. Share what they are and strategies the children used to work these out.
- Play number games such as Buzz. Pick a number and then count in ones from zero or any other given point. Then the children need to say buzz when a multiple is said. To make it more challenging, children to start at higher points in the times tables and to explore with x tables that the class find harder.
- Model ways and strategies to record down the x tables of numbers, especially to help find multiples over 50 and 100. Encourage the children to suggest obvious facts they know so that they do not write every multiple from 0 for suggestions over 100. For example: Multiples of 7: I know 10×7 is 70 and 5×7 is 35 so 105 is a multiple of 7.

Practice Activities

Purple Practice: Most suited for children who made errors in Question 11 of the prior assessment due to lack of understanding of what multiples are.

For this activity, the children are presented with a purple block with a number on and 5 boxes. The children should be encouraged to find the next 5 multiples of the number in the purple block. You could challenge the children by selecting 2 blocks that they have found the multiples for and the children to find multiples in both numbers such as 5 and 3 or 6 and 9. Discuss with the children how they found these and encourage the children to use key vocabulary such as common multiple.

Green Practice: Most suited for children who can find some multiples of numbers but will benefit from finding multiples not always from the given number.

On the task sheet, the children are provided with a spinner and instructions of how to play the game. The children must roll a dice and find multiples of that number. They should also be encouraged to spin the spinner to find multiples over 10, 20, 30, 40 etc.

Children may need modelling strategies for finding multiples over numbers such as 40 by recording down the times tables and finding shortcuts. Also, to make this more challenging, the children could use dice with numbers 7 to 12 on as well.

Yellow Practice Most suited for children who are ready to find multiples that are common of two different numbers.

The children are required to find examples of multiples for 2 numbers. The children should find 3 multiples for each number and then 3 common multiples and record these into the correct place on the Venn diagram. Discuss with the children the strategies they used and ensure you introduce that these are called common multiples. Additionally, encourage the children to discuss any patterns they notice such as every other number of 3 times table is a multiple of 6. They may demonstrate difficulty here as they cannot fill in all parts of the Venn diagram.

Mastery The children are presented with 30 numbers from a section of a hundred square. The children should suggest strategies of how to solve the problem of circling all the numbers that are NOT multiples of 3,4,5 and 9. The children should be encouraged to see what patterns they notice and discuss the relationship between multiples of 3 and 9.

Once the children have solved part one of the task, the children are encouraged to think of their own part of a hundred square (children could select numbers over one hundred if they want to challenge themselves). The children are then to think of 3 of their own numbers and complete the same task as part one.

Answers:

Purple:

2) 5, 10, 15, 20, 25, 30

3) 8, 16, 24, 32, 40, 48

4) 9, 18, 27, 36, 45, 54

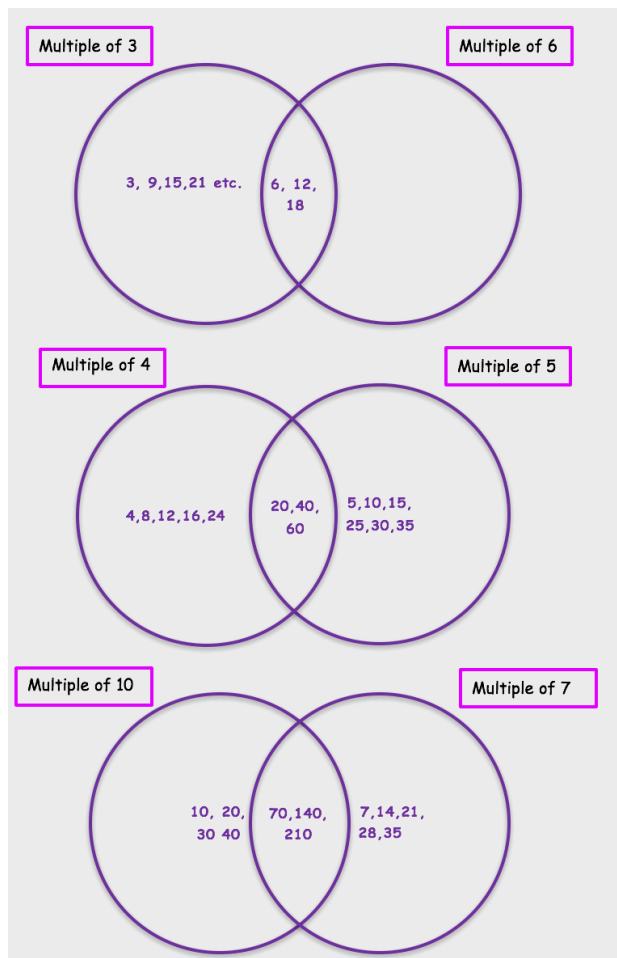
5) 7, 14, 21, 28, 35, 42

6) 11, 22, 33, 44, 55, 66

7) 12, 24, 36, 48, 60, 72

8) 15, 30, 45, 60, 75, 90

Yellow:



mastery:

71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Find the next 5 multiples of the number in the purple block and record these in the pink boxes.

1)

3

6 9 12 15 18

2)

5

3)

8

4)

9

5)

7

6)

11

7)

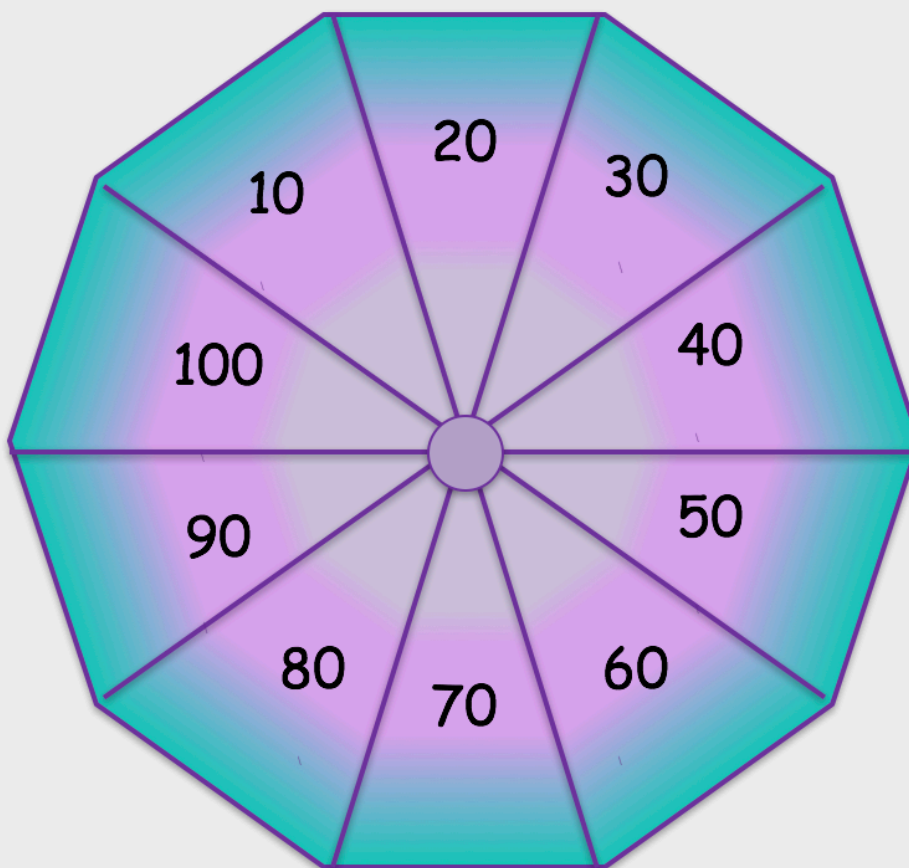
12

8)

15

Game:

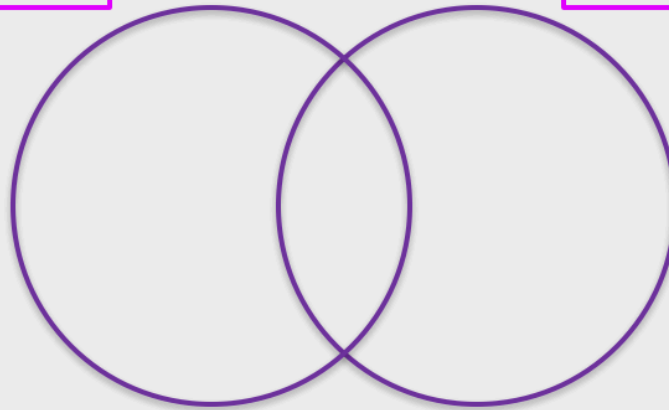
- 1) Cut out the spinner below and place a pencil through the centre mark.
- 2) Roll a dice and record the number you land on.
- 3) Spin the spinner.
- 4) Find 3 multiples for the number on the dice over the amount the spinner lands on.
For example: I rolled a 4 and landed on 30. Multiples could be 32, 36, 40, 44
- 5) Repeat by rolling the dice again and spinning the spinner.



1) Place 3 numbers into each part of the Venn diagram.

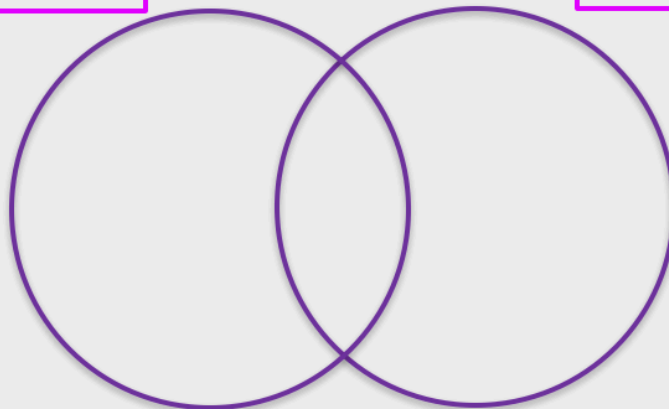
Multiple of 3

Multiple of 6



Multiple of 4

Multiple of 5



Multiple of 10

Multiple of 7

