**Grange Primary School**

**LEARNING LADDER 7**

**Multiplying and Dividing -   Online Learning**

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| **What i am Learning** | **Game Link** | **Guidance** |
| **(A) I can understand and apply a range of strategies to solve number problems including decimals to two decimal places.** | 1. [Mental Multilpication Lesson BBC](https://www.bbc.co.uk/bitesize/topics/zm982hv/articles/zhgk8xs)
2. [Division with remainders lesson BBC](https://www.bbc.co.uk/bitesize/topics/zm982hv/articles/zr7thbk)
3. [Multiplying Ratio lesson BBC](https://www.bbc.co.uk/bitesize/topics/zghnb9q/articles/zb9thbk)
4. [Easy mental 2 digit by 2 digit multiplication](https://www.onlinemathlearning.com/math-trick-multiply-2-digit.html)
5. [Easy 2 digit by 3 digit mental multiplication](https://www.youtube.com/watch?v=lvnSTezEvME)
6. [Guardians Game](https://www.bbc.co.uk/games/embed/guardians-mathematica)
 | 1. Watch the clip and take part in the activities to work through the different levels.
2. Watch the clip, read the explanations and do the quiz to test your understanding at the end.
3. Watch the clip on multiplying with ratios and do the activities including the quiz.
4. Watch the clip to learn to how multiply 2 digits by 2 digits mentally. Do the calculations on the page to master the method.
5. Watch the clip carefully and work out the examples for multiplying 2 digit and 3 digit numbers.
6. Select your character, play the Training Arena then play both Mysterious Mountains of Multiplication and Dark Tower of Multiplication.
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| **(B) I can use arrays and grids to calculate multiplication and division problems.** | 1. [Grid multiplication](http://downloads.bbc.co.uk/skillswise/maths/ma10mult/factsheet/ma10mult-e3-f-multiplication-splitting-method.pdf)
2. [Dividing with a remainder using an array](https://www.youtube.com/watch?v=3C5g4zkJV5g)
3. [All the Digits](https://nrich.maths.org/1129)
4. [Multiplies Grid](https://nrich.maths.org/5429)
 | 1. Read over the sheet and examples to understand how to use the grid method for multiplication.
2. Watch the video to remember how to divide with a remainder using an array.
3. Read through the problem and work out the answers. It may take a few tries.
4. Read through the problems and try and find the rules for each square.
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| **(C) I can use division strategies to find a fraction of a whole.** | 1. [Guardians Game](https://www.bbc.co.uk/games/embed/guardians-mathematica)
2. [Short Division with Decimals](https://www.youtube.com/watch?v=6FHL3J3FYaE)
 |  (1) Select your character, play the Training Arena then play Dark Tower of Division. (2) Watch the clip and learn how to divide decimals by whole numbers.  |
| **(D) I can multiply by 0, 1, 10, 100 and 1000 to calculate whole numbers and decimals with two places.** | 1. [BBC lesson](https://www.bbc.co.uk/bitesize/topics/zm982hv/articles/z49wjhv)
2. [Missing number multiplication](https://nrich.maths.org/10421)
3. [Bingo Times or Divide](https://www.topmarks.co.uk/Flash.aspx?f=bingotimesordivide)
 | 1. Watch the clips, take part in the activities and do the quiz to test your knowledge.
2. Use your multiplication skills to solve this problem.
3. Select the Times and Divide by 10 and 100 (decimals) game then play.
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| **(E) I can calculate multiplication and division using standard writing methods.** | 1. [Short Division lesson BBC](https://www.bbc.co.uk/bitesize/topics/zm982hv/articles/z4tfy9q)
2. [Division Challenge](https://nrich.maths.org/10490)
3. [Drop and Drag Multiplication](https://mrnussbaum.com/drag-n-drop-math-online)
4. [How to use Long Multiplication](https://www.youtube.com/watch?v=zkUUNo90eSE)
 | 1. Watch the link to understand how to use short division with remainders and rounding.
2. Use your division skills to solve the problems.
3. Select the multiplication option, select 20 problems then play.
4. Watch the video as a guide of how to do long multiplication.
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