**Grange Primary School**

**LEARNING LADDER 7**

**Add and Subtract -   Online Learning**

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| **What i am Learning** | **Game Link** | **Guidance** |
| **(A) I can apply my knowledge of partitioning in a range of ways to interpret and solve problems.** | 1. [How to partition for adding](https://www.youtube.com/watch?v=XCm_NXSzhl0&list=TLPQMDQwNjlwMiCwHO-dFzs740&index=2)
2. [How to partition for subtraction](https://www.youtube.com/watch?v=-iRronVd00c)
3. [Space Distances](https://nrich.maths.org/13270)
4. [What Distance?](https://nrich.maths.org/13267)
5. [Partitioning lesson BBC](https://www.bbc.co.uk/bitesize/topics/zm982hv/articles/zmr72sg)
 | 1. Watch video as it explains how to partition for addition.
2. Watch video as it explains how to partition for subtraction.
3. Use your partition skills to answer these space based questions.
4. Use your partitioning skills to work out the solutions to Challenge 1 and Challenge 2.
5. Watch the clip and complete the activities on partitioning.
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| **(B) I can apply a range of different strategies when calculating addition and subtraction up to 1 000 000 and 2 decimal places.** | 1. [20 Divided by 6](https://nrich.maths.org/1047)
2. [Subtraction Surprise](https://nrich.maths.org/11014)
3. [Guardians Game](https://www.bbc.co.uk/games/embed/guardians-mathematica?exitGameUrl=https%3A%2F%2Fbbc.com%2Fbitesize%2Farticles%2Fzn2y7nb)
4. [Compensation Guide](https://www.youtube.com/watch?v=X3kgzlb8VrM)
5. [Temperature Map](https://mrnussbaum.com/temperature-map-online-game)
 | 1. Follow the instructions to solve the answers. You will need both addition and subtraction to do this.
2. Watch the clip carefully and follow the instructions to investigate the pattern.
3. Create your character, play the Training Arena then play Addition and Subtraction Shire.
4. Watch the video to remind yourself how to use compensation.
5. Click start to play. You may need a pencil and paper for jottings.
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| **(C) I can use my knowledge of inverse operations to manipulate a calculation to make it easier.** | 1. [Triangular Cards](https://www.topmarks.co.uk/Flash.aspx?f=triangularcardsv4)
2. [Number Fact Families](https://www.topmarks.co.uk/number-facts/number-fact-families)
3. [Thinking of a Number](https://mathsframe.co.uk/en/resources/resource/262)
4. [Recess Master](https://mrnussbaum.com/recess-master-online-game)
5. [Tae Kwon Donuts](https://mrnussbaum.com/tae-kwon-donuts-online-game)
 | 1. Select Add Decimals from the Number Trios box in the bottom left corner. Remove the triangles to reveal the numbers. Use a paper and pencil to record the four number sentences using the correct operations.
2. Select the red + and – option then Negative up to -50. Drag the tiles into the correct position to complete the four number sentences.
3. Click to play the game. Select Level 3 and follow the instructions. Play Level 4 after.
4. Select Level 2 and click on all the incorrect answers to win tokens to play the games. Play again to win more tokens. Use your inverse operations skills to check the answers.
5. Select your character and click play to begin. If playing again, enter your code here. Work through the levels using your inverse operations knowledge to help you.
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| **(D) I can estimate the answer before I calculate and check my answer in a variety of different ways.** | 1. [Estimation Valley Golf](https://mrnussbaum.com/estimation-valley-golf-online-game)
2. [Estimate then Calculate Challenge](https://www.transum.org/Software/SW/Starter_of_the_day/starter_September30.ASP)
3. [Breathe Easily](https://www.transum.org/Software/SW/Starter_of_the_day/starter_October26.ASP)
4. [Strike it out](https://nrich.maths.org/6589)
5. [What Distance?](https://nrich.maths.org/13267)
 | 1. Select your character then play the Junior Level. When you are finished you can play the Pro Level too.
2. Work through each of the five activities. Estimate then calculate after. Put all five answers in size order when you are finished.
3. Read the instructions and estimate your answer. Explain your answer to a person at home.
4. Watch the clip and read through the text. Play with another person (family member or friend virtually) to solve the problem. Remember to check the other person’s answers.
5. Complete Challenge 1 using your estimation skills then do Challenge 2 remembering to check your answers each time.
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| **(E) I can read and understand numbers using a calculator, use the memory function and enter calculations in different ways.** | 1. [How to use memory buttons](https://www.youtube.com/watch?v=_uQnA3J77f4)
2. [Broken Calculator](https://www.transum.org/Software/SW/Starter_of_the_day/starter_September5.ASP)
3. [Cal-a-hundred](https://www.transum.org/Software/SW/Starter_of_the_day/starter_October5.ASP)
4. [Calculator Nim](https://www.transum.org/Software/SW/Starter_of_the_day/starter_November14.ASP)
5. [Top Transfer (inc decimals)](https://www.transum.org/Software/SW/Starter_of_the_day/starter_December7.ASP)
 | 1. Watch the clip to learn how to use the memory functions on a standard calculator.
2. Follow the instructions to make the totals on the broken calculator.
3. Play with a family member or friend virtually) and follow the instructions to play and win. Can also be played individually.
4. Play with a family member (or friend virtually). Follow the instructions and see who wins.
5. Begin with Start with 100 on your calculator. What are the largest and smallest totals you can end up with at the finish? You can only travel in the direction of the arrows.
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