**Grange Primary School**

**LEARNING LADDER 6**

**Understanding Fractions -   Online Learning**

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| **What i am Learning** | **Game Link** | **Guidance** |
| **(A) I can name fractional amounts and can identify the numerator and denominator** | 1. [Learn-a-long: Watch ME!](https://mrnussbaum.com/introduction-to-fractions-instructional-video)
2. [Fun with Fractions](https://phet.colorado.edu/sims/html/fractions-intro/latest/fractions-intro_en.html)
3. [Fraction Investigator](https://mrnussbaum.com/fractions-identifying-mixed-numbers-online)
4. [Karate Cats!](https://www.bbc.co.uk/games/embed/karate-cats-2?exitGameUrl=https%3A%2F%2Fbbc.co.uk%2Fbitesize%2Farticles%2Fzf4sscw)
 | 1. Relax > WAtch > Learn--a-long
2. VISUALISE FRACTION VALUES: Click Intro > Use the arrows to experiment and change the numerator and denominator > select your visual from the top menu
3. Look at the shaded amounts > Investigate mutiple choice answers (you might need to scroll down) >Select correct> Next Q
4. Start > (>) > green hexagon to skip > scroll using purple and select fractions > SILVER > Listen/ Read/Solve > Select answer >click green hexagon
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| **(B) I can solve problems involving fractions using the four operations including counting on and back** | 1. [Bridge Builder -Make 1 whole](https://www.mathplayground.com/bridgebuilder_fractions.html)
2. [Computation Castle!](https://mrnussbaum.com/computation-castle-online-game)
 | 1. Aim is to make 1 WHOLE to create briudges > Build bridges with the fewest number of blocks > trade smaller blocks for larger blocks > click arrow > drag fraction blocks to bridges > think carefully remember your goal!
2. \*\*CHALLENGE\*\*Break the spell! Convert the fractions into the needed amounts! (Uses whole numbers – REMEMBER a whole can be written as a fraction when the numerator and denominator are the same e.g. 4/4, 6/6 !) Click Play > Read story > Ok> Click frog > Enter Chamber 1>
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| **(C) I understand 1 whole = 100% and can use this link when solving percentage problems** | 1. [Listen > Learn > Sing](https://www.youtube.com/watch?v=WPZ8jIMV1mA)
2. [Match up!](https://claritymaths.uk/games/memory/fractions-decimals-percentages.html)
3. [Monty's Maths Wall](https://mathsframe.co.uk/en/resources/resource/292/Montys_Maths_Wall)
4. [MEMORY MATCH](http://www.math-play.com/changing-fractions-to-percents/concentration-changing-fractions-to-percents_html5.html)
5. [DOUGHNUT PERCENTS](https://nrich.maths.org/content/id/6945/Doughnut%20percents%20cards.pdf)
 | 1. Relax > Watch ‘n’ Sing> Learn-a-long
2. Click Fractions and percentages Level 1> Turn two cards and make a match up! Between fraction and percentage > Remember what you have seen and where! \*\*Select two players if someone at home wants to join in!
3. Play Game > Scroll Down to CONVERT FRACTIONS TO PERCENTAGES > UNIT FRACTIONS > Medium > Use arrow Keys to guide fraction to its equivalent percentage REMEMBER 100% = 100/100 = 1 whole)
4. Click two cards > Remember what is revealed > Match the frection to its equivalent percentage for the cards to disappear > Reveal the hidden picture by finding all matches
5. PRINT & DO > Download > Print > Cut out > PLAY! > Domino stykle game > the cards should link to make a ‘Doughnut’ shape! Or multiplayer [instructions here!](https://nrich.maths.org/6945)
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| **(D) I can visualise fractional amounts to help me order and compare them** | 1. [Sand Dollar Exchange](https://mrnussbaum.com/sand-dollar-exchange-online-game)
2. [TUG TEAM (uses < = >)](https://www.mathplayground.com/ASB_TugTeamFractions.html)
3. [FIX THE FRACTIONS](https://phet.colorado.edu/sims/html/fractions-intro/latest/fractions-intro_en.html)
4. [MATH MAGICIAN - Timed Game](http://www.math-play.com/math-magician-compare-fractions-game/math-magician-compare-fractions_html5.html)
5. [Tony's Pizza Shop!](https://mrnussbaum.com/tony-fraction-s-pizza-shop-online-game)
6. [Fraction Patterns!](https://mrnussbaum.com/fractions-patterns-of-equivalent-fractions-online)
 | 1. Timed Game: Click play> Use the arrow keys to direct the crab to the sand dollar > take the sand dollar to the correct fraction!
2. Compare the fractions and move your team toward victory! > play > enter name > continue > play now > start game > compare the fractions select smaller than <, equal to = or greater than > to beat the computer at truck tug!
3. Select Game > Level 2 red circle> Create the fractions on the right hand side and drag to the correct box to up level!
4. Drag and drop the magicians bunnies into the correct hat! > select smaller than <, equal to = or greater than >
5. Click Play > Read the pizza order > Select the size (pay attention to nuber of slices – this is your denominator!) > Selet the topping cretaing the correct order > click send
6. Solve the ? > Look at the fractions already inplace> find a pattern> type missing value in box> check > Next Q
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| **(E) I can describe and match decimal amounts with their equivalent fraction (e.g 0.5m = 1/2m)** | 1. [Puppy Chase!](https://www.mathplayground.com/ASB_Puppy_Chase_Decimals.html)
2. [Monty's Maths Wall](https://mathsframe.co.uk/en/resources/resource/292/Montys_Maths_Wall)
3. [Death to Decimals!](https://mrnussbaum.com/death-to-decimals-and-the-adventures-of-fraction-man-online-game)
4. [Match Me!](https://nrich.maths.org/1249)
 | 1. Click play > enter your name > play now > start game > look at the fraction > remember the TENTHS column is after the decinaml point e.g. 1/10 = 0.1 > select the equivalent decimal from the options
2. Play Game > Scroll Down to CONVERT FRACTIONS TO DECIMALS > UNIT FRACTIONS > Medium > Use arrow Keys to guide fraction to its equivalent decimal (Remeber Place Value ones.tenths hundredths)
3. Help Fraction Man defeat the Invaders! > Play > Read story > Start > Play > Note fraction at bottom > Use ARROW keys to move Fraction Man underneath equivalent decimal > press space bar to zap invader before they get to Earth!
4. Turn two cards to make a match > includes percentages for an extra challenge!
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| **(F) I can visualise and match fractions of equal value (equivalent) e.g. 5/10 = ½** | 1. [TRIPLETS!](https://www.mathplayground.com/Triplets/index.html)
2. [BUNNy SORT!](http://www.math-play.com/math-magician-simplest-form-game/math-magician-simplest-form_html5.html)
3. [Fraction Dolphins](https://mrnussbaum.com/fraction-dolphins)
4. [PRINT AND DO](https://mrnussbaum.com/introduction-to-fractions)
5. [Memory Fractions](https://www.sheppardsoftware.com/mathgames/fractions/memory_fractions2.htm)
6. [Fire Pit Fraction](https://www.ictgames.com/mobilePage/firepitFractions/index.html)
 | 1. You must create teams of triplets (3) for the Intergalactic space games! > drag the aliens showing equivalent fractions their teams! > click (>) to start
2. Read > click next > drag the bunny to the hat showing the equivalent fraction (REMEMBER divide the numerator and denominator bythe same number to see if this matches any of the fractions on the hats!)
3. Click play> Look at the fraction on the bucket > match it with the dolphin who has the equivalent fraction
4. PRINTER REQUIRED: Cut and stick game > Match the pictture to the correct box showing its written fraction
5. Select timed mode > Start > Clicking the fraction and its matching picture > Follow instructions to Level Up!
6. Se;ect Level 3 > Read the fraction in the smoke > Click on the matching food picture!
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| **(G) I can use my knwoledge of equivalent fractions to simplify them and can use visuals (drawings/ diagrams) to explain this** | 1. [Learn-a-long! Watch Me!](https://mrnussbaum.com/reducing-simplifying-fractions-instructional-video)
2. [FRACTION FOOTBALL!!](http://www.math-play.com/simplifying-fractions-game/simplifying-fractions-soccer-game_html5.html)
3. [Odd one Out!](https://mrnussbaum.com/fractions-which-fraction-is-not-equivalent-to-the-others-online)
4. [FRACTION WALL!](https://www.ictgames.com/mobilePage/equivalence/index.html)
 | 1. Relax> Watch > Learn-a –long!
2. Click next > Select the correct answer from the multiple choice > option for 2 player (Red vs. Blue) or just play as both teams
3. Look at ALL of the fractions > Click the fractiono that is NOt equivalent to the rest > TOP TIP: Find the fractions using the lowest numbers – Can the other fractions be SIMPLIFIED into this fraction?> Click Next Q
4. Build a fraction wall to to explain equivalent and simplifying fractions > Drag the whole blocks up from the bottom> Stack to create a wall> click on the blocks and the fraction you wish to split it into
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