**Grange Primary School**

**LEARNING LADDER 7**

**Understanding Fractions -   Online Learning**

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| **What i am Learning** | **Game Link** | **Guidance** |
| **(A) I can read and write fractional amounts accurately and can identify the numerator and denominator** | 1. [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. [Picture Fractions!](https://phet.colorado.edu/sims/html/fractions-intro/latest/fractions-intro_en.html)
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. Select Game > Level 4 NUMBER> Look at the pictures on the right >Drag the correct number to the numerator and denominator positions to show how much is shaded > drag to the matching shapes to up level!
4. Start > (>) > green hexagon to skip > scroll using purple and select fractions > GOLD > Listen/ Read/Solve > Select answer >click green hexagon
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| **(B) I can solve complex fraction problems - including finding fractions of amounts (e.g. money, weight, capacity etc.) using the four operations** | 1. [Computation Castle!](https://mrnussbaum.com/computation-castle-online-game)
2. [Money Memory!](https://nrich.maths.org/2730)
3. [Crystal Crash!](https://mathsframe.co.uk/en/resources/resource/264/Crystal-crash-fractions-numbers)
4. [Dividing fractions!](https://www.splashlearn.com/measurement-games-for-5th-graders?topics=fraction)
 | 1. \*\*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
2. Find the fraction problem and its answer > click two cards at time to find matches > memorise what you see and where!
3. Finding Fractions of Numbers > #play game > Add player > enter name > add player ? Select 5 > genius >mission 1 > solve problem > click on correct crystal to break through row > next level
4. Scroll down > Find Divide unit fraction by a whole > Play now > Use the fraction wall to help click the correct answer
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| **(C) I can explain that % represents ‘out of 100’ and recognise a percentage is a fraction with a denominator of 100 – i can apply this when problem solving** | 1. [Learn - a-long (WATCH ME!)](https://www.bbc.co.uk/bitesize/articles/zynhjsg)
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)
6. [Teacher Talk! (bbc iplayer)](https://www.bbc.co.uk/iplayer/episode/p08b5kr4/bitesize-911-year-olds-week-2-7-teacher-talks-fractions-percentages-and-decimals)
 | 1. Relax > Watch > Learn-a-long
2. Click Fractions and percentages Level 2> 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 > Easy > 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)
6. (Incudes decimal) Clcik (>) > sit back > relax > remind yourself of what you already know!
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| **(D) I can visualise fractional amounts to help me order and compare them** | 1. [Awesoe Ordering (WATCH!)](https://www.bbc.co.uk/bitesize/clips/z33r87h)
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. Relax > Watch > Learn – a - long
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 3 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 apply my place value knowledge to 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)
5. [Puppy Pull!](https://www.coolmath4kids.com/math-games/puppy-pull?tid=10)
 | 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 > Hard > 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 bottome > 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!
5. Play> enter name > start >play now > start game > read fraction > select correct equivalent decimal from multiple choice!
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| **(F) I can visualise and match fractions of equal value (equivalent) e.g. 5/10 = ½, and can use x and ÷ to make fractions equivalent** | 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. [Snow Sprint ( x fractions)](https://www.coolmath4kids.com/math-games/snow-sprint?tid=5)
4. [Target Time!](https://www.helpingwithmath.com/resources/games/fraction_game4/equivalent01.html)
5. [Dirt Bike Ralley!](https://www.coolmath4kids.com/math-games/dirt-bike-proportions?tid=5)
 | 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 by the same number to see if this matches any of the fractions on the hats!)
3. Multiplying fractions >Click play > enter name continue> Play now start game > multiply denominators / multiply numerators ? Select correct answer (This might be the simplified version of fraction!)
4. Click Start > Target and fire at the equivalent fraction!
5. Play > enter name > play now > start game > use x or ÷ to select correct ewquivalent fraction from multiple choice
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| **(G) I can simplify fractions finding their lowest denominator, e.g. 4/8 = ½. and explain why this process involves dividing - leaving an equivalent fraction.** | 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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