Recommended Websites and Resources for Supporting Numeracy Development across Transition

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| Web address | Recommended age and stage | How is it useful/what can it help with? |
| Steve Wyborney’s blog:  <https://stevewyborney.com> | Early level to Third. Have focused on Cube Conversations, Fraction Splat, Splat, Esti-mysteries and Estimation Clipboard activities with P7/S1 pupils. | Free to download activities to increase number sense encourage mathematical discussion and promote creativity. All activities are alongside explanations of how to use them with learners. |
| Steve Wyborney Cube Conversations:  <https://stevewyborney.com/2017/12/cube-conversations/> | First and Second level. | Pupils are encouraged with numerical approaches in calculating the number of cubes in each structure. These activities can illicit good discussion as pupils justify why they used the strategies they did. |
| Steve Wyborney Splat and Fraction Splat:  <https://stevewyborney.com/2018/09/splat-for-google-slides-40-lessons/> | First and Second level. | Fun activities to increase number sense. |
| Steve Wyborney Esti-Mysteries:  <https://stevewyborney.com/2019/09/51-esti-mysteries/> | Second level. | Fun activities that are good for sparking mathematical discussion and increasing number sense. Can be used alongside a number square too: <https://www.ictgames.com/mobilePage/hundredSq/index.html> |
| Steve Wyborney Estimation Clipboard:  <https://stevewyborney.com/2018/04/the-estimation-clipboard/> | Second level. | Fun activities that are good for sparking mathematical discussion and increasing number sense. |
| Mathsbot website:  <https://mathsbot.com> | Early level to Senior Phase. | Lots of visual manipulatives to aid understanding. There are also puzzles and question/worksheet generators. |
| Math Learning Center:  <https://www.mathlearningcenter.org/resources/apps> | Early to Third level. | More visual manipulatives. The Number Line app is useful when discussing counting on/back strategies for addition and subtraction. |
| Youcubed website:  <https://www.youcubed.org> | Early to Third level. | Useful advice for parents here regarding supporting their child’s mathematical development (click on the ‘Parent Resources’ tab). There is also a selection of activities that pupils and carers may want to try at home ( click on ‘Tasks and More’, then click on ‘Week of Inspirational Math(s)’) |
| Which One Doesn’t Belong:  <http://wodb.ca/numbers.html> | First level to Senior Phase. | Images to use for ‘Which One Doesn’t Belong?’ number talks. Pupils can be shown four numbers/shapes/graphs and try to justify which one doesn’t belong. |
| Number line tool:  <https://www.topmarks.co.uk/Flash.aspx?f=NumberLinev5> | First level to Third. | Interactive number line tool. Useful for when practicing identifying where numbers lie on a number line, including decimal numbers. |
| Number Square:  <https://www.ictgames.com/mobilePage/hundredSq/index.html> | First level to Third. | Interactive visual tool to use alongside other numerical tasks such as addition and subtraction. Can be used as a visual to help with Steve Wyborney’s Esti-Mysteries. Useful for practicing negative numbers too. |
| Arrays tool:  <https://mathsframe.co.uk/en/resources/resource/62/itp-multiplication-array> | First and Second level. | Useful visual tool showing arrays. Can link to multiplication facts. |
| Arrays matching game:  <http://engaging-math.blogspot.com/2018/11/array-multiplication-cards.html> | First and Second level. | Game where pupils can link multiplication facts to arrays. Play matching pairs/snap. Requires printing. |
| Linking fractions, decimals and percentages:  <http://engaging-math.blogspot.com/search/label/decimals> | Second level. | Pupils can link visual fractions, decimal fractions and percentages. Requires printing. |
| Arrays box filling game:  <https://sites.google.com/a/pvlearners.net/sweigand-games/array-boxes> | First and Second level. | Box filling game. Multiplication game with arrays to help understanding. Requires squared paper and dice. Could be used alongside ‘Area perimeter generator’ resource: [https://toytheater.com/area-perimeter-explorer/#](https://toytheater.com/area-perimeter-explorer/%23%20%20%20) |
| Dream Box Arrays game:  <https://www.dreambox.com/multiplication-with-open-arrays> | Second and Third level. | Build smaller arrays to help answer 2 digit by 2 digit multiplication questions. Helps pupils to develop multiplication strategies. |
| Dream Box Arrays Game:  <https://play.dreambox.com/student/dbl/CoveringBlueprintsUsingArraysChall03?atype=1&back=http%3A%2F%2Fwww.dreambox.com%2Fcanada> | First and Second level. | Helps pupils to build their multiplication strategies. Increases pupils understanding of arrays. |
| Dream Box Addition:  <https://play.dreambox.com/student/dbl/NumberStringsCompensationChallenge02?atype=1&back=http%3A%2F%2Fwww.dreambox.com%2Fk-8-math-lessons> | First and Second level. | Pupils practice using compensation as an addition strategy. |
| Fraction Talks Website:  <http://fractiontalks.com/> | First, Second and Third level. | This website has images to promote discussion around fractions. See the twitter feed for examples on how the images are used with pupils. |
| Active Maths number line activity:  <http://www.active-maths.co.uk/fractions/whiteboard/dec_index.html> | First and Second level. | Useful tool for practicing to identify where numbers lie on a number line. Useful for decimal numbers. |
| Maths is Fun number line tool:  <https://www.mathsisfun.com/flash.php?path=%2Fnumbers/images/number-line-zoom.swf&w=960&h=330&col=%23FFFFFF&title=Zoomable+Number+Line+(Flash)> | First and Second level. | Another interactive number line. Good for identifying tenths and hundredths. |
| ICT Games Arrow Cards and Dienes Blocks:  <https://www.ictgames.com/mobilePage/arrowCards/index.html> | First and Second level. | Pupils could practice addition and subtraction questions and use the arrow cards and dienes block visuals to help. Dienes blocks and arrow cards to help with understanding of place value and exchanging. |
| ICT Games Fraction Wall:  <https://www.ictgames.com/mobilePage/equivalence/index.html> | Second level. | Pupils can generate their own fraction wall to explore equivalent fractions. |
| Fraction of a quantity activity:  <https://www.ictgames.com/mobilePage/fractions/index.html> | Second level. | Practice finding a fraction of a quantity with interactive counters and bar model. |
| Fraction/percentage of a quantity question generator:  <https://www.visnos.com/demos/starter-calculate-percentage-decimal-fraction> | Second and Third level. | Spin the wheel to generate a question- find a percentage or fraction of a quantity. |
| Fraction, decimal and percentage visual activity:  <https://www.visnos.com/demos/percentage-fraction-decimals-grid> | First, Second and Third level. | Pupils can create their own visual representations of fractions. Then they can practice identifying what is represented as a fraction, decimal fraction and as a percentage. |
| Thermometer visual teaching tool for integers:  <https://mathsframe.co.uk/en/resources/getresource/89/game> | Second Level. | A visual tool to be used alongside addition and subtraction calculations involving negative numbers. |
| Algebraic equations game:  <https://www.mathplayground.com/AlgebraEquations.html> | Second and Third level. | A visual tool to represent algebraic equations. Add in zero pairs to find the value of X. Increases pupils’ knowledge and understanding of how to solve equations. |
| Algebraic Reasoning Puzzle:  <https://www.mathplayground.com/wangdoodles.html> | Second and Third level. | A fun puzzle that requires pupils to use algebraic reasoning. Find out the weight of each alien. |
| Visual Fractions website:  <https://www.visualfractions.com/> | First, Second and Third level. | Visual representations of fractions alongside questions to help with understanding. Useful for identifying fractions, simplifying and adding/subtracting fractions. |
| Cdmasterworks Ltd, The Daily Rigour:  <https://www.cdmasterworks.co.uk/the-daily-rigour/> | Second and Third level. | A free weekly numeracy newspaper. Pupils can develop their numeracy skills in the context of topical events. |
| Cdmasterworks Ltd, Calendar:  <https://www.cdmasterworks.co.uk/e-s-o-s/> | First level to Fourth. | Monthly calendar available to upload with a new maths challenge for each day. |
| Cdmasterworks Ltd, Daily Questions:  <https://www.cdmasterworks.co.uk/distance-learning/> | Second to Fourth level. | Daily questions with accompanying video explanations and strategies. |
| Hooda Math algebra balance beam:  <https://www.hoodamath.com/games/algebrabalanceequations.html> | Second and Third level. | Interactive balance beam visual tool to help pupils solve equations and aid their overall understanding. |
| Maths Playground fraction bridge builder:  <https://www.mathplayground.com/bridgebuilder/fractions.htm> | Second level. | Reinforces pupils’ understanding of equivalent fractions. |
| Math Playground integers game:  <https://www.mathplayground.com/ASB_SpiderMatchIntegers.html> | Second level. | Useful for practicing addition and subtraction involving negative numbers. |
| Nrich Maths countdown game:  <https://nrich.maths.org/6499> | Second and Third level. | A version of countdown. Pupils can show their creativity in trying to get to the target number. |
| Nrich Maths activities:  <https://nrich.maths.org/9084> | First and Second level. | A wide range of activities covering different topics. Activities come alongside explanations. |
| Nrich Maths interactive games and puzzles:  <https://nrich.maths.org/9415> | Second level. | A variety of interactive games and puzzles including Cuisenaire rods to explore fractions and tangram puzzles to develop problem solving skills. |
| David Young maths manipulatives:  <http://plaza.ufl.edu/youngdj/portfolio.htm> | First, Second and Third level. | More maths manipulatives including an equation balance tool, coordinate plane and number line. |
| Estimating Percentages activity:  <https://fuse.education.vic.gov.au/Resource/LandingPage?ObjectId=17d42fac-3040-4ec4-a256-98555a03b992&SearchScope=Primary> | Second level. | Useful for showing a model of a percentage. Pupils can practice and improve their understanding of what percentages look like in a bar model. |
| Comparing fractions, decimals and percentages on a number line:  <https://fuse.education.vic.gov.au/Resource/LandingPage?ObjectId=73de2704-1521-4e76-bd0b-ffc4fa11ec24&SearchScope=Primary> | Second and Third level. | A useful tool for comparing fractions, decimals and percentages visually, and showing where they lie on a number line between 0 and 1. |
| Equivalent Fractions Resource:  <https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Equivalent-Fractions/> | Second level. | Pupils can increase their knowledge and understanding of equivalent fractions by creating them with this resource, and see where the fractions lie on a number line. |
| Topmarks Fraction activity:  <https://www.topmarks.co.uk/Flash.aspx?f=Fractionsv7> | Second level. | A useful range of activities to support pupils with such concepts as equivalent fractions and ordering fractions and decimals on a number line. |