|  |  |
| --- | --- |
| **Field area / Field of Learning covered by this Level 1 resource list** | **Numeracy** |
| **Minor Awards - Names** | **Data Handling**  **Pattern & Relationships**  **Problem Solving**  **Quantity & Number**  **Shape & Space** |
| **Minor Awards - Codes** | **M1N08**  **M1N06**  **M1N09**  **M1N05**  **M1N07** |
| **Level** | **1** |

**Suggested resources to support delivery at Level 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theme/Topic**  **Data Handling** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Data Handling | Website | Section on data handling. Some of the content is too advanced for level 1 but tutor can use what suits class profile e.g. see ‘asking questions’ under Surveys. | [www.mathsis](http://www.mathsis)fun.com | <https://www.mathsisfun.com/data/index.html> |
| Data Handling | Website | Links to data handling games. Some of the games are tablet friendly and could be used with adults. | C:\Users\Tutor\Documents\Susan\Top marks.png | <https://www.topmarks.co.uk/maths-games/5-7-years/data-handling> |
| Collecting Data | Website | This link brings you to a resource for introducing criteria. Tutor may need to adapt to suit group profile. | Image result for images of logo for skillswise BBC | <http://www.bbc.co.uk/skillswise/topic/collecting-data> |
| Grouping and communicating information of data | Website | Worksheets on groupings and visual presentations of data. Tutor may need to adapt to suit group profile. | C:\Users\Tutor\Documents\Susan\education.png | <https://www.education.com/worksheets/first-grade/graphing/> |
| Data Handling | Free download pdf | This collection of worksheets is designed for level 2 but you may find it useful to look through the samples for ideas when designing your own resources for level 1. | Educoot  Educoot.com | <https://static1.squarespace.com/static/53e7dd4fe4b0fb1fc62c318a/t/5a4a739ce4966b19e31ed84c/1514828704072/Sample_DH_2_Revised.pdf> |
| Data Handling | Publication  pdf | P.81 – 83, this section identifies simple activities and resources to use when teaching adults. | © The Basic Skills Agency 2001 Produced by Cambridge Training and Development Ltd. on behalf of the Basic Skills Agency, Commonwealth House, 1–19 New Oxford Street, London WC1A 1NU. | <http://www.counton.org/resources/adultcc/pdfs/resource_130.pdf> |
| Data Handling | Website to support the teaching of mathematics | This website provides great resources/ideas for teaching problem solving skills. The site is aimed at primary school teachers but many of the activities could work just as well with adults. | **NRICH** enriching mathematics | <https://nrich.maths.org/9031> |
| Handling Data | Website | Selection of resources for teaching data handling. Different levels so tutor would need to use what is appropriate for group. | PrimaryResources.co.uk | <http://www.primaryresources.co.uk/maths/mathsF1f.htm> |
| **Theme/Topic**  **Pattern and Relationship** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Pattern and Relationship | Worksheets | Repeating pattern activity sheets using shapes and colours.  Twinkl also has ‘**Create’** feature which you can use to make your own resources.  Required to sign up but some free resources available. (Also good for ideas for own resources) €6.69 per month (Apr 2018) for access to all resources. Also has section for Adult Education. | Teaching Resources, Primary Resources, Twinkl, Primary School Resources | <https://www.twinkl.ie/resource/t-n-193-repeating-pattern-worksheets-shapes-and-colours> |
| Pattern and number sequences | Website | Selection of resources for teaching pattern and relationship. Different levels so tutor would need to use what is appropriate for group. Great **PowerPoint** presentation on **Sequences** by Donna Weeks which also includes sound patterns. | PrimaryResources.co.uk | <http://www.primaryresources.co.uk/maths/mathsB3.htm> |
| Pattern and relationship | Free download pdf | This collection of worksheets is designed for level 2 but you may find it useful to look through the samples for ideas when designing your own resources for level 1. | Educoot  Educoot.com | <https://static1.squarespace.com/static/53e7dd4fe4b0fb1fc62c318a/t/5a4a748271c10bd7b34e945c/1514828937245/Sample_PR2.pdf> |
| **Theme/Topic**  **Problem Solving** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Problem Solving | Website | This site supports the teaching of maths and this link has informative articles for tutor and activities to use with learners. | **NRICH** enriching mathematics | <https://nrich.maths.org/10334> |
| Problem Solving | Website | Ideas for using problem solving activities. This page provides possible questions for the tutor to ask during problem solving activities. | Home | <https://nzmaths.co.nz/ideas-using-problem-solving-activities> |
| Problem Solving | Website | This link brings you to a resource problem solving. Tutor may need to adapt to suit group profile. | Image result for images of logo for skillswise BBC | <http://www.bbc.co.uk/skillswise/topic/problem-solving/resources/l1> |
| Problem Solving | Video | Terry Maguire suggests that doing a Maths Trail around a local park or amenity is a great way to help individuals develop their 'maths eyes' and use their own strategies for working out problems. | Image result for NALA logo  Numeracy Conference, June 2016 | <https://www.nala.ie/tutors/continuous-professional-development/videos/numeracy> |
| Problem Solving | Website | An education resources website. This page covers fluency, reasoning and problem solving. | Twinkl.co.uk  Teaching Resources, Primary Resources, Twinkl, Primary School Resources | <https://www.twinkl.ie/resources/numeracy-maths/numeracy-maths-maths-challenge-area> |
| **Theme/Topic**  **Quantity & Number** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Quantity & Number | Free download pdf | This is an excellent resource, a sample collection of worksheets for this component. There is no charge for the sample and complete sets are available at a cost. Some ETBs have purchased ***educoot*** modules so advise checking with local centres. | Educoot.com  Educoot | <https://static1.squarespace.com/static/53e7dd4fe4b0fb1fc62c318a/t/5a4a6c32f9619ae3bb7afcad/1514826811520/Sample_QN_1+.pdf> |
| Quantity & Number | Maths workbook pdf | A great resource for this component. Part 1 focuses on using numbers in everyday life.   * Use and write numbers 1 -10 * Count up to 10 objects * Use math language * Adding numbers between 0 and 10 | Image result for NALA logo Date of Publication: Wednesday, 16 December 2015 ISBN: 9781907171246 | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part1.pdf> |
| Quantity & Number | Lesson plans | Use and adapt these lesson plans and worksheets   * Relationship between numbers and groups of items * Introduce language of maths * Record numbers | C:\Users\Tutor\Documents\Susan\education.png  www.education.com | <https://www.education.com/resources/worksheet+lesson-plan/kindergarten/counting-numbers-1-10/lesson+plan+quantities+and+numbers/> |
| Recognising numbers | Numbers 1 -10 worksheets | Range of worksheets | C:\Users\Tutor\Documents\Susan\education.png  www.education.com | <https://www.education.com/worksheets/kindergarten/counting-numbers-1-10/> |
| Reading and writing numbers | Information re activities to develop skills and understanding. | Adult Numeracy Core Curriculum (UK) outlines framework for the adult learner.  P 27 – 30 covers whole numbers and provides list of suggested activities. | © The Basic Skills Agency 2001 Produced by Cambridge Training and Development Ltd. Editor: Andrew Steed  ISBN 1-85990-128-X | <http://www.counton.org/resources/adultcc/pdfs/resource_130.pdf> |
| Relationship between groups of objects and value 1 – 10 | Worksheets | Worksheets for counting and matching groups of objects 1 -10 | www.worksheetfun.com | <http://www.worksheetfun.com/category/math-worksheetfunmenu/number/counting/numbers-count-and-match/> |
| Relationship between value and group of objects | Worksheets | Counting and matching to numbers | www.schoolsparks.com | <http://www.schoolsparks.com/kindergarten-worksheets/category/learning-numbers-worksheets> |
| Recognising relationship between group of objects and number | Lesson Plan  Free download | Lesson plan about the relationship between numbers and quantities that has students use their counting skills to match several objects with their written value. | C:\Users\Tutor\Documents\Susan\education.png  ©education.com | <https://www.education.com/lesson-plan/matching-numbers/> |
| Naming and recording numbers 0 – 10 | Worksheets | Worksheets focusing on the numbers 1-10, also tracing worksheets to practice writing numbers 1 – 10. Not all suitable as may appear childish but many good to use with adults. | www.worksheetfun.com | <http://www.worksheetfun.com/category/math-worksheetfunmenu/number/numbers-1-10/> |
| Naming digits | Worksheets | This website provides worksheets for teaching maths to children. It does require membership for access to all its resources but there are some free worksheets to use when exploring and writing numbers. May not suit all adult learners but ideas can be used to generate own resources. | Math Worksheets For Kids | <https://www.mathworksheets4kids.com/number-charts.php> |
| Language of maths | Worksheets | Comparison worksheets using language  **more or less than**  **shortest / tallest**  **smallest/biggest**  **same/different**  **matching** | www.worksheetfun.com | <http://www.worksheetfun.com/2016/02/20/comparison-worksheets-more-or-less-2-worksheets/> |
| Mathematical language | Booklet | This booklet outlines various terms and phrases under the different math strands. Created for primary school but may be helpful for tutor when considering language of measurement. | [stjkingscourt.scoilnet.ie](https://stjkingscourt.scoilnet.ie)  St. Josephs National School, Kingscourt. | <https://stjkingscourt.scoilnet.ie/Maths%20Language%20Booklet.pdf> |
| Number bonding and language of maths. | Article by Liz WoodhamDot Card Games Stage:Published February 2014. | This article outlines dot card games to use when teaching number bonding and using the language of maths. Instructions for games outlined and option to print pdf game cards. Resources can be adapted to suit class profile. | **NRICH** enriching mathematics | <https://nrich.maths.org/10740> |
| Language of everyday maths and number bonding. | Teacher guides  pdf | This is an excellent website providing resources to maths teachers. The resources provided are very useful and include short video, teaching points and teacher guides include lesson plans, activities and assessment. It is aimed at school teachers so adapt for the adult learner. This link leads to Year 1, number, addition & subtraction. Segments 1.1 covers comparisons of quantities and measures, parts of which can be used to introduce the language of maths.  Segments 1.2 – 1.4 looks at the composition of numbers which will support teaching number bonding 0 – 10. | NCETM - The National Centre for Excellence in the Teaching of Mathematics | <https://www.ncetm.org.uk/resources/50640> |
| Number bonding | Workbook pdf | Great resource from NALA.  Part 2 is the section relevant for number bonding. | Image result for NALA logoDate of Publication: Wednesday, 16 December 2015 ISBN: 9781907171246 | <https://www.nala.ie/resources/brushing-maths-workbook> |
| Number bonding | Worksheet | Number bond mystery | www.education.com | <https://www.education.com/download/worksheet/171398/number-bond-mystery.pdf> |
| Number bonding | Video | This tutorial will inform the tutor about numbers bonds and how they can be used in math sentences. |  | <https://www.youtube.com/watch?v=kn26on8U1X4> |
| **Theme/Topic**  **Shape & Space** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Shapes & Space | Free download pdf | This is an excellent resource, a sample collection of worksheets for this module. There is no charge for the sample and complete sets are available at a cost. Some ETBs have purchased ***educoot*** modules so advise checking with individual centres. | Educoot.com  Educoot | <https://static1.squarespace.com/static/53e7dd4fe4b0fb1fc62c318a/t/5a4a6df271c10bd7b34daded/1514827259343/Sample_SS1.pdf> |
| Shapes & Space | Maths workbook pdf | A great resource for this module. Section 2 focuses on shapes in everyday life.   * Recognise and talk about shapes. * Recognise features of shapes and forms. * Use words to do with comparing shapes and forms. | Image result for NALA logo Date of Publication: Wednesday, 16 December 2015 ISBN: 9781907171246 | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part3.pdf> |
| Shape & Space | Printables and worksheets. | An education resources website. This page lists resources such as; worksheets, games, cards, posters and activities.  Twinkl also has ‘**Create’** feature which you can use to make your own resources.  Required to sign up but some free resources available. €6.69 per month (Apr 2018) for access to all resources. Also has section for Adult Education. | Twinkl.co.uk  Teaching Resources, Primary Resources, Twinkl, Primary School Resources | <https://www.twinkl.ie/resources/geomoetry-maths-key-stage-1/properties-of-shape-geomoetry-maths-key-stage-1/3d-shapes> |
| Naming shapes, angles and sides. | Worksheets | Selection of worksheets on drawing and tracing of shapes, identifying shapes, corners and sides. Some sheets may not be appropriate for adults but good selection available. | www.worksheetfun.com | <http://www.worksheetfun.com/category/math-worksheetfunmenu/shapes/> |
| 2D Shapes | Presentation on 2D shapes | Comprehensive presentation on everyday 2D shapes and involves class participation. Link will bring you to list of different math strands, scroll down to shape and space. Also listed is geoboard activity if you have access to any or want to make your own.  https://lh6.googleusercontent.com/JzGe_wPDz6SRjMZwlDnOuMSXpdI7-FhXzGXpP130yb5BuwkznVJFTuszRYDdQvQtGWGMkmId6DY-nniWcs6p_XRJm7VQefHHa0AEu_iGfR1DljRAOYD7jGSY43fekipZVRUuYC7Dhttps://lh6.googleusercontent.com/_-34cqjH_n-RjBJvyCJIrFrWp5JKqwicS58mivEPkf7flRjDxrdFAgXSFIByQ-wlsXdLVHQ2i_u1SDKdg40pzAUaiEqIPyoXNg3xtemfNCxT6ec8tu8eLFkWMHyGN1_KYZmiCWNlhttps://lh6.googleusercontent.com/BbzYcq1mLhtgs1sDRPwv8RVVeqdMCzVQg5rk-thMD8yobZp3qFjyS_8I1FF6BbXEq1fZOq7RJMcda0q0krn-ASQEPZxkTt_PS-sopgleFSNZb3DGWjSli3AxekjnhVxIBfQ_VZNGhttps://lh5.googleusercontent.com/P0-KpgePw0_zSrDFi-1MYxbg7xYlHb5UCnx2E6A0F0fs36U7x0NH01HOWOGQ3QQSjU0wOJou76tGSdETIucOMzF9H4rvlQfsVf43rpjbPrj8LGZ-mDoqEARAogEM4Sw3EVR5SX_Z  https://lh4.googleusercontent.com/VPNEgcuLMt0JRFI2GrG2C5E0e8WFx59kq7P9NScjhAYPQIy_APnBHalRJOdhHcfc_EjZqr3sAfPLcyzFAZvTrP-mf6b21Apw8wKsYP1rvutJMbP8lGKnBzCnNS_OpW4cWN6wG0w6https://lh6.googleusercontent.com/s-LbIfUa6Fevj6JKy01SMfhvqMDK4nVrpMkMQ4AK1I43N6BpCPNS1O_CsYDUu94_xP5MURRNFVJtb4XysvyE0oJ4wIE3232YHjDlZQlI8SmtCgi4mPrbdkYV6Hkk8AUwHlRZo5O_https://lh5.googleusercontent.com/KHDYNywfvB6IocIPXBFl2Ff5fNI6cw0urW0ipz_d0oQ3Dj5b3IEaxQZgtwps4zVbCSAWumeD3H5TB1FH_4-fwJC6fIHJtFv_OqlIXkxYz7GdCuClFMITn1RQpvFxOWLtttyfiZxYhttps://lh5.googleusercontent.com/P8_rUXr5-wdyranSn4buDhZSHcSt61a-b1qAkphgKL4W49iLpOw3n6kQfZuNSHVAjzQ77-m8a5xBZ4YYZy0_yMTFmEoR35ivas6l7t5Ec1QrR4N68z_OlPfoqEHkgAvZckHk-Ay2 2D shapes | sites.google.com/site/primarycpd | <https://sites.google.com/site/primarycpd/mathematics/maths-strands-and-strand-units-for-third-to-sixth-class> |
| Recognising shapes | 2D shapes worksheets | Various worksheets to help learn about the various characteristics of different shapes. Not all suitable for working with adults but good selection available. | C:\Users\Tutor\Documents\Susan\education.png  ©education.com | <https://www.education.com/worksheets/2d-shapes/> |
| 2D shapes | Worksheets | This website provides worksheets for teaching maths to children. It does require membership for access to all its resources, but this link will bring you to a selection of 2D worksheets some of which are free and appropriate to use with adults. | Math Worksheets For Kids | <https://www.mathworksheets4kids.com/shapes.php> |
| 2D and 3D shapes | Printable shapes and 2D and 3D worksheets | A great resource to help teaching 2D and 3D shapes. Plenty of worksheets to reinforce learning about the properties of shapes. | Image result for logo for salamanders.com  salamanders.com | <https://www.math-salamanders.com/printable-shapes.html> |
| 2D and 3D shapes | Website | A great resource for this component. This link will bring you to the Geometry section which covers 2D and 3D shapes. Some of the content is too advanced for level 1 but tutor can use what suits class profile. There are activities to support learning, some of which are interactive and may be used depending on learner abilities. | [www.mathsis](http://www.mathsis)fun.com | <https://www.mathsisfun.com/geometry/index.html> |
| 2D and 3D shapes | Website | Skillswise is a great resource when teaching English and maths to adults. In this section, click on either 2D or 3D shapes to use resources such as video clips or quizzes. Some activities can be done online or printed depending on abilities of learners. | Image result for images of logo for skillswise BBC | <http://www.bbc.co.uk/skillswise/topic/2-d-shapes> |
| 3D shapes | Worksheets | This website provides worksheets for teaching maths to children. It does require membership for access to all its resources, but this link will bring you to a selection of 3D worksheets some of which are free and appropriate to use with adults. | Math Worksheets For Kids | <https://www.mathworksheets4kids.com/solid-shapes.php> |
| Describing, constructing and sorting shapes. | Website to support the teaching of mathematics | This website provides great resources/ideas for teaching 2D and 3D shapes. In this section on Geometry, the *Jump into Geometry* and *Geometry Stage 1&2* suggest fun and novel activities to reinforce learning. The site is aimed at primary school teachers but many of the activities could work just as well with adults. | **NRICH** enriching mathematics | <https://nrich.maths.org/public/search.php?search=geometry> |
| Properties of shapes, comparing 2D and 3D shapes. | Website to support teaching of mathematics | This is an excellent website providing resources to maths teachers. You need to register but no fees.  This link brings you to the section on geometry. Select: Properties of shapes, YR1 or YR2, then select ‘activities’, to source ideas for class activities. | NCETM - The National Centre for Excellence in the Teaching of Mathematics | <https://www.ncetm.org.uk/resources/42797> |
| **Following resources are also useful for one or more of the components.** | | | | |
| Comprehensive resource for module | Resource and image pack  Website | This is an **EXCELLENT** resource as provides a resource pack for tutors and collections of images which can be used to teach concepts. It aims to enable learners to engage in critical thinking and problem solving using everyday images. Very visual materials/ideas that can be used and adapted for lesson plans. | Have You Got Maths Eyes | <http://www.haveyougotmathseyes.com/resources/> |
| Comprehensive resource for module. | List of websites for generating resources and activities for teaching adults. | Literacy Source, based in Seattle, is a community of support for adults and volunteer tutors covering different subjects including maths. Literacy online is a resource site for tutors and this link brings you to a comprehensive list of website recommendations used for:   * Creating worksheets * Online activities for learners | Literacy Source | <https://sites.google.com/site/literacyonline/teaching-materials/math/online-resources> |
| Guide for tutors on preparing materials. | Booklet:  Preparing Learning Materials, Guide Literacy and Numeracy Tutors | Information for tutors about preparing learning materials. | Image result for NALA logo | <https://www.nala.ie/sites/default/files/publications/preparing_learning_materials_2006.pdf> |
| Information for Tutor | Website providing information, resources and links | In this section, NALA provides information for tutors on approaches to teaching maths and possible resources e.g. an app **Think 3D**. There are videos to support tutors teaching maths and links to other relevant websites. | Image result for NALA logo | <https://www.nala.ie/tutors/top-tips/teaching-maths> |
| Comprehensive resource for module. | Interactive online games. | This resource provides online games and activities for different levels and options for all the different numeracy components. Suitability depends on abilities of group. | Math Playground | <https://www.mathplayground.com/grade_1_games.html> |
| Comprehensive resource for module. | Website | This site definitely worth a look if you want to use technology with your groups.  A socially-curated discovery engine of websites, mobile apps, desktop programs, and electronic products for teaching and learning, great resource. | E:\FESS\Edshelf.jpg | <https://edshelf.com/> |
| Comprehensive resource for module. | Website | This website is packed full of free **math worksheets** printable as well as **math** games, **math** puzzles and interactive **math** activities. | Image result for logo for salamanders.com  www.salamanders.com | <https://www.math-salamanders.com/> |
| Module resource | Website | Selection of numeracy worksheets grade 1 some of which are suitable to use with adults. | Home | <http://www.k5learning.com/free-math-worksheets/first-grade-1> |
| Information for tutor relating to teaching methods/approaches to teaching maths. | Booklet | This booklet gives advice and information on making the teaching of maths active and interesting for the learner. It discusses moving away from the traditional teacher-led approach to a more participatory and constructivist method. | Department for Education and Skills Standards Unit (UK)  Published August 2005  www.ncetm.org.uk | <https://www.ncetm.org.uk/public/files/224/improving_learning_in_mathematicsi.pdf> |
| Manual for Teaching Basic Maths to Adults | Book pdf | Designed for use by adult basic education instructors who are interested in changing their teaching practice. Some of the later chapters are more relevant to levels 2 and 3 but chapters 4, 5 & 6 cover using manipulatives and group work when teaching maths to adults. | **Author(s):**  Kate Nonesuch  **Author(s) Organizational Affiliation:**  Malaspina University-College  Cowichan Campus  Duncan, British Columbia  Candade  **Published:**2006 | <https://lincs.ed.gov/professional-development/resource-collections/profile-253> |
| Comprehensive resource for module. | Website, activities, apps | Pinterest – **great** website for ideas and resources |  | <https://www.pinterest.ie/> |
| **Other suggested resources**:  Use everyday items such as cartons, boxes, cylinder cardboard inserts, tennis balls, dice, food packages, photos.  Cutting and pasting, matching shape to name.  Make flashcards, two sets to play memory where cards are face down and learners, in turn, try to find pairs of numbers, shapes, patterns.  Paper folding / Origami activities for shapes, patterns and problem solving. | | | | |
| **Useful Apps**:  **Audacity** – digital audio recording software  **Movie Maker** – create and edit videos  **Quizlet** – create learning tools, flashcards  **Kahoot** – create games for learning  **Pattern Shape** – Using shapes to explore geometry and create designs  **Geoboard** – Learners stretch bands around pegs to form lines and shapes.  **StudyStack** – Flashcards and activities. | | | | |

**Useful Organisations:**

|  |  |
| --- | --- |
| **Name** | **Contact Information** |
| National Adult Literacy Agency (NALA) | <https://www.nala.ie/> |
| Special Education Support Service (SESS) | <https://www.sess.ie/> |
| Dyslexia Association of Ireland | <http://www.dyslexia.ie/> |
| Educoot (adult education resources) | <https://educoot.org/> |
| Further Education Support Service (FESS) | [www.fess.ie](file:///C:\Users\AverilHayes\AppData\Local\Microsoft\Windows\INetCache\IE\IVDXOTUG\www.fess.ie) |
| Khan Academy (online learning resource) | [www.khanacademy.org](file:///C:\Users\AverilHayes\AppData\Local\Microsoft\Windows\INetCache\IE\IVDXOTUG\www.khanacademy.org) |

|  |  |
| --- | --- |
| **MOOCs (Massive Online Open Courses)** | |
| Free access to online courses  Search regularly for new courses and new start dates | <https://www.mooc-list.com/> |

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| --- | --- |
| **Field area / Field of Learning covered by this Level 1 resource list** | **Numeracy** |
| **Minor Awards - Names** | **Quantity and Number**  **Shape and Space**  **Using Technology** |
| **Minor Awards - Codes** | **M1N05**  **M1N07**  **M1T10** |
| **Level** | **1** |

**Suggested resources to support delivery at Level 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theme/Topic:**  **Quantity and Number** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Name one and two-digit whole numbers 1-10 | Downloadable workbook | Brushing Up: a maths workbook.  In this workbook, students will learn how to use numbers and shapes in everyday life. It includes a variety of worksheets and activities to write digits and words 1-10 | National Adult Literacy Agency (NALA) | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part1.pdf> |
|  | Downloadable workbook | Time 4 Learning  This series looks at 3 areas:  1. Numbers for living  2. Understanding the time  3. Using money.  It includes a variety of worksheets using numbers 1 to 10 | NALA | <https://www.nala.ie/sites/default/files/publications/Time%204%20Learning%20-%20numeracy%20workbook_1.pdf> |
| Recognise the relationship between numerical value and groups of objects, up to and including 10 | Worksheets | Brushing Up: a maths workbook.  In this workbook, students will learn how to use numbers and shapes in everyday life. Part 2 includes resources to support counting groups of everyday items. | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part2.pdf> |
| Record one and two digit numbers | Worksheets | Brushing Up: a maths workbook.  In part 1 of this workbook, students will learn how to use numbers and shapes in everyday life.  Variety worksheets and activities to write digits and words 1-10 | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part1.pdf> |
| Recognise the language of mathematics in everyday situations | Game | A comprehensive website covering areas including literacy, numeracy, ICT, science etc. This is free to join. Games using *greater than/ less than/ equal to* are among many that are available here. | Studyladder | <https://www.studyladder.com/teacher/resources/activity?activity_id=28028> |
|  | Picture cards | A comprehensive website covering all aspects of the primary curriculum with resources designed by teachers including picture cards used to identify longest/ shortest | Seomra Ranga | <https://www.seomraranga.com/2016/01/which-is-the-longestshortest/> |
|  | Downloadable workbook | Time 4 Learning  This series looks at 3 areas:  1. Numbers for living  2. Understanding the time  3. Using money.  Worksheets on numeracy in life e.g. eating out, price tags, assigned seating charts etc | NALA | <https://www.nala.ie/sites/default/files/publications/Time%204%20Learning%20-%20numeracy%20workbook_1.pdf> |
|  | Online cards | Picture card game based on language such as longer/ shorter/ wider/ narrower etc that increases in difficulty as the learner progresses. | IXL – Website with resources for maths from Junior Infants in Primary to Sixth Year in Secondary | <https://ie.ixl.com/math> |
|  | Number sentence game | This resource is aimed at pupils in junior/middle classes or SEN pupils. Its aim is to help pupils who are working on basic number to consolidate their skills in the area. There are eighteen number sentences which pupils have to sort out into ones that are greater than/less than/equal to ten. | Seomra Ranga | <https://www.seomraranga.com/2016/11/greater-thanless-thanequals-10/> |
| Apply number bonding between 1 and 10 | Worksheet | Brushing Up: a maths workbook.  In part 1 of this workbook, students will learn how to use numbers and shapes in everyday life.  Lists of all addition bonds up to 10 and worksheets. | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part1.pdf> |
|  | Worksheet | Brushing Up: a maths workbook.  In part 2 of this workbook, students will learn how to use numbers using number bonding practice sheets, addition using 1 to 10 | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part2.pdf> |
|  | Online game | Move through levels on the game using number bonds 1 to 10  Math Playground is a learning site filled with math games, logic puzzles and a variety of problem solving activities. | Math Playground  Colleen King | <https://www.mathplayground.com/number_bonds_10.html> |
|  | Card Pack | This addition resource pack is to help pupils consolidate their knowledge of addition facts. It covers tables from +0 to +10. It can either be used as a teaching tool or as an assessment tool. | Seomra Ranga | <https://www.seomraranga.com/2017/08/addition-cards-pack/> |
|  | Quiz | Kahoot! is a game-based learning and trivia platform used in classrooms, offices and social settings. Sign up to create, play and share engaging quizzes on any topic including a quiz on number bonds 1 to 10 | KAHOOT | <https://play.kahoot.it/#/k/e74c38e9-b888-4ae2-b908-039ae962d8c9> |
| **Theme/Topic:**  **Shape and Space** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Recognise shapes and forms in everyday life | Worksheets | Exercises to identify shapes e.g. circular clock | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part3.pdf> |
|  | Homework activity to find 2d shapes at home | A comprehensive website covering all aspects of the primary curriculum with activities designed by teachers including worksheets on 2D Shapes at Home | Seomra Ranga | <https://www.seomraranga.com/2010/09/2d-shapes-at-home/> |
| Identify key characteristics of shapes and forms | Workbook | Brushing Up: a maths workbook.  In part 3 of this workbook, students will learn how to describe the characteristics of a variety of shapes | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part3.pdf> |
|  | Online cards | Picture card game based on 2 (and 3) dimensional shapes that increases in difficulty as the learner progresses. | IXL | <https://ie.ixl.com/math> |
| Use the language of measurement in relationship to shape and form | Work sheets | Brushing Up: a maths workbook.  In part 3 of this workbook, students will engage with exercises to use language such as wider/ narrower etc in relation to shapes | NALA | <https://www.nala.ie/sites/default/files/publications/maths_workbook_part3.pdf> |
| **Theme/Topic:**  **Using Technology** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Identify technology in common use | Website | A website hosting a huge variety of images that are free to use  Variety of images of commonly used technology | Shutterstock | <https://www.shutterstock.com/image-vector/four-commonly-used-technology-items-129782276> |
| Identify the symbols on familiar technological devices |  | Google images has a range of manuals/ images of technology available. | Google images |  |
| Use simple technological equipment for home/personal use and workplace/educational use | Workbook | Using Technology at Work: Clocking In to Clocking Out. Improving basic workplace education.  This workbook explores technology such as a calculator, icons on a computer screen etc | NALA | <https://www.nala.ie/sites/default/files/publications/Clocking%20in%20to%20clocking%20out%20-%20guide%20to%20technology_1.pdf> |
|  | Workbook | Time 4 Learning  Downloadable workbook covering topics such as time, money, travel and eating out.  Includes worksheets on calculator use. | NALA | <https://www.nala.ie/sites/default/files/publications/Time%204%20Learning%20-%20numeracy%20workbook_1.pdf> |
|  | Online games and worksheets | Comprehensive set of worksheets and games which include images and worksheets on different types of technology in everyday use. (This should be searched through by the tutor in advance as some of the material is for young children and may be off-putting for older learners.) | Webwise  Play and Learn: Being Online | <https://www.webwise.ie/guides-parents/> |
| Pay attention to safe practice | Online guide | The Webwise Primary School Programme is for primary school teachers who wish to introduce internet safety into SPHE. The resources teach kids the skills needed for surfing the web. | Webwise  //:Webwise Primary Teachers’ Handbook | <https://www.webwise.ie/teachers/resources/> |
|  | Online guide | Provides information, advice and conversation starters about the benefits and risks needed to be aware of when using the internet. Topics explored in the guide include cyberbullying, screen time, sexting, social media and online pornography. | Webwise  A Parent’s guide to a Better Internet | <https://www.webwise.ie/guides-parents/> |
|  | Online guide | Aimed at six to twelve year olds, The Family e-Safety Kit, was created to help parents share the benefits and risks of surfing the web in a fun and engaging way | Webwise  Family e-safety kit | <https://www.webwise.ie/guides-parents/> |
| Additional resources | Free book | This guide is intended to give tutors practical ideas and suggestions for the design, writing and development of learning materials for adult literacy and numeracy work. | NALA | <https://www.nala.ie/resources/preparing-learning-materials-guide-literacy-and-numeracy-tutors> |
|  | Free, downloadable handbook | A handbook outlining teaching and assessment techniques, styles, and approaches for teaching students from diverse backgrounds. | Basic Skills Agency  *Introduction to Numeracy Teaching*  by Jessica Brittan | <http://files.eric.ed.gov/fulltext/ED368913.pdf> |
|  |  | Comprehensive, free website offering numeracy resources for both young and adult learners. | Skillswise | <http://www.bbc.co.uk/skillswise> |

**Useful Organisations:**

|  |  |
| --- | --- |
| **Name** | **Contact Information** |
| National Adult Literacy Agency | <https://www.nala.ie/> |
| Webwise | <https://www.webwise.ie/> |
| Further Education Support Service (FESS) | <http://www.fess.ie> |
| Special Education Support Service (SESS) | <http://www.sess.ie> |

|  |  |
| --- | --- |
| **MOOCs (Massive Online Open Courses)** | |
| Free access to online courses  Search regularly for new courses and new start dates | https://www.mooc-list.com/ |

|  |  |
| --- | --- |
| **Field area / Field of Learning covered by this Level 1 resource list** | **Numeracy** |
| **Minor Awards - Names** | **Pattern and Relationship**  **Data Handling**  **Shape & Space**  **Quantity & Number**  **Problem Solving** |
| **Minor Awards - Codes** | **MN106**  **M1N08**  **M1N07**  **M1N05**  **M1N09** |
| **Level** | **1** |

**Suggested resources to support delivery at Level 1:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theme/Topic: Pattern & Relationship** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Exploring pattern and relationship | Book | Maths in 100 Key Breakthroughs presents a series of essays explaining the fundamentals of the most important maths concepts you really need to know. | Richard Elwes | <https://www.amazon.co.uk/Maths-100-Breakthroughs-Richard-Elwes/dp/1780873220/ref=sr_1_1?ie=UTF8&qid=1524834504&sr=8-1&keywords=maths+in+100+key+breakthroughs> |
| Exploring pattern and relationship. | Book | Whether used as a handy reference, an informal self-study course or simply as a gratifying dip-in, this book offers - in one volume - a world of mathematical knowledge for the general reader. | Richard Elwes | <https://www.amazon.co.uk/Maths-1001-Absolutely-Everything-Mathematics-ebook/dp/B0711BFMDT/ref=sr_1_1?s=books&ie=UTF8&qid=1524834754&sr=1-1&keywords=maths+in+1001> |
| Exploring pattern and relationship | Book | This is a new edition of this popular title, which provides a fantastic reference point for students. | Tori Large | <https://www.amazon.co.uk/Illustrated-Dictionary-Maths-Usborne-Dictionaries/dp/1409546969/ref=sr_1_1?s=books&ie=UTF8&qid=1524835231&sr=1-1&keywords=dictionary+of+maths> |
| Patterns in real-life. | Photographs | Flickr is a website when used smartly can reveal some of the best photos that display patterns in nature and architecture. | Contributors - public | [www.flickr.com](https://tippsouthvec-my.sharepoint.com/personal/jodriscoll_tipperaryetb_ie/Documents/FESS/www.flickr.com) |
| Fibonacci numbers | A short video talk. | The wonderful Arthur Benjamin outlines the mystique and patterns that occur in the Fibonacci sequence. | TED with Arthur Benjamin. | <https://www.youtube.com/watch?v=SjSHVDfXHQ4> |
| Patterns and symmetry | Worksheets | A great worksheet resource that helps learners work with patterns and shapes. | Super Teacher worksheets | <https://www.superteacherworksheets.com/symmetry.html> |
| Patterns and symmetry | Worksheets | Very useful worksheets that deal with number patterns along with symmetry, shape and space. | Teaching image | <http://teachingimage.com/shape-and-space-worksheets.php> |
| Patterns in real life | YouTube video | A very interesting video that explains the visible and tactile patterns used to help people negotiate streets and junctions. | Tom Scott | <https://www.youtube.com/watch?v=cdPymLgfXSY> |
| Drawing simple shapes | Interactive website | A website that can be used to draw simple shapes in 2d and 3d | Geogebra | <https://www.geogebra.org/> |
| Drawing simple shapes | YouTube channel | Instruction videos on using Geogebra | YouTube | <https://www.youtube.com/user/GeoGebraChannel> |
| Patterns: shapes and numbers. | Website | Help your class see the pattern in numbers with this great array of worksheets. | Teaching ideas, UK. | <http://www.teachingideas.co.uk/subjects/number-patterns> |
| Designing simple patterns | Online tessellation creator | Move, resize, colour and create patterns   * Design skills * Visual pattern recognition skills * ICT skills   Members ONLY access | The National Council of Teachers of Mathematics (Inc) US | <https://illuminations.nctm.org/Lesson.aspx?id=3112> |
| Drawing simple patterns | Online shape and pattern creatory | Draw, move and colour shapes to create individual patterns and sequences. | The Mathematics Learning Centre. | <https://apps.mathlearningcenter.org/pattern-shapes/> |
| Creating and appreciating rhythms | Website | A great website with lesson ideas, videos to learn from all around rhythm and pattern through dance and movement. | Michelle Wirth, B.M., M.Ed | <http://www.bodypercussionclassroom.com/> |
| Maths, numbers, shapes and patterns | Website and social media application. | Math and Number Awareness involves a variety of skills, including: 1) Numeral identification (recognizing all 10 numerals from 0 through 9 and knowing each numeral’s name); 2) Counting; 3) One-to-one correspondence; 4) Counting on; 5) Patterning recognition and creation; and 6) Sorting and classifying. | Pinterest; public contributors | <https://www.pinterest.ie/kinderooacademy/math-numbers-shapes-patterns/?autologin=true> |
| Patterns, sequences and making connections. | Website. | Wild Maths is produced by the [Millennium Mathematics Project](http://maths.org/) at the University of Cambridge, who are best known for [NRICH](http://nrich.maths.org/) and [Plus](http://plus.maths.org/). It is aimed at 7 to 16 year olds exploring maths beyond the classroom, but open to everyone. | Millenium mathematics, Cambridge. | <https://wild.maths.org/about> |
| Creating quizzes | Website | Quizlet allows you to create flashcards and make quizzes and games around your chosen topic | Quizlet | [www.quizlet.com](file:///C:\Users\AverilHayes\AppData\Local\Temp\Temp2_FW__FESS_Resource_List_Development_-_Payment.zip\www.quizlet.com) |
| Creating quizzes and flashcards | Websites | GoConqr allows you to create flashcards, quizzes, presentations and notes on your chosen topic | GoConqr | <https://ww.goconqr.com/en-US/users/sign_in> |
| Videos, worksheets, 5-a-day boosters | Website | Corbett maths stores a huge variety of worksheet, videos and other resources most useful for all aspects of basic mathematics | Corbettmaths | <https://corbettmaths.com/> |
| **Theme/Topic: Data Handling** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Student workbook of essential data handling in all its basic guises. | Workbooks | These student-friendly A4 workbooks provide fill-in self-assessment records to accompany the popular Maths: the Basic Skills Worksheet Packs written for the Adult Numeracy | Bridget Philips et al. | <https://www.amazon.co.uk/Maths-Basic-Skills-Handling-Workbook/dp/0748783326/ref=sr_1_1?ie=UTF8&qid=1524774133&sr=8-1&keywords=basic+maths+data+handling> |
| Basic Skills teacher handbook to accompany resource no. 1 | Textbook | A really decent basic maths book that can be easily adapted to many levels. It is packed with great examples, and teaching strategies. | June Haighton. | <https://www.amazon.co.uk/Maths-Basics-Functional-Skills-E3-L2/dp/0748777008/ref=pd_sbs_14_1?_encoding=UTF8&psc=1&refRID=Z4W5HJXYXQZ0C9JHVT4F> |
| Data as pictures/pictograms on printable worksheets. | Easy print PDF worksheets. | A wide range of very accessible worksheets on all aspects of numeracy and basic maths but with really nice pictogram worksheets. | Numeracy World | <http://teachingimage.com/handling-data.php> |
| Real-life data as gathered by the Central Statistics Office | Infographics in PDF format. | A nice selection of smartly produced infographic posters with data gathered on such items as “favourite baby names” “population and average household spending. | Central Statistics Office. | <http://cso.ie/en/interactivezone/visualisationtools/infographics/> |
| Data as bar charts and pie charts | Online interactive website | Easy-use website to draw simple bar and pie charts. | Meta-chart | <https://www.meta-chart.com> |
| Fostering a sense of number | Workbook | NALA Brushing Up maths workbook – excellent resource for inculcating number sense. | NALA – The National Adult Literacy Agency. | <https://www.nala.ie/resources/brushing-maths-workbook> |
| Understanding an average | Worksheets | Excellent website that allows a tutor to create simple worksheets of limited variables from which learners can work out a simple average | Math-Aid | <http://www.math-aids.com/Mean_Mode_Median/> |
| Building data collecting, presenting and reading skills | Online interactive website | This is a fun website to use that covers all the levels and all the topics including interpreting simple data, graphing and charting same with simple quizzes and tests to test understanding. | Math Games. | <https://www.mathgames.com/> |
| Data terminology | Flash cards | A nice website that allows you to print flash cards that explain the essentials of data and number. | Helping with Math. | <https://www.helpingwithmath.com/by_subject/statistics_probability/sta_pie_charts_6sp4.htm> |
| Getting to grips with data ideas. | Flash cards/quizzes/note books/presentations | Simply a beautifully built website that while will probably need to very much tutor led can help produce smart learning tools that can even be accessed on a smart phone. Access to a huge variety of community created resources | GoConqr website | <https://www.goconqr.com/> |
| Creating a simple survey | Build a simple survey. | Survey monkey can prove very clever at designing very nice and easy-read surveys and importantly give really nice organised results and feedback. | Survey Monkey. | <https://www.surveymonkey.com/> |
| Creating a simple survey | Build a simple survey with Google Forms | All the above but given the ubiquitous nature of Google, this application is readily available in the Google Drive suite of office software. Very attractive templates to use. | Google Inc | <https://www.google.com/forms/about/> |
| All things data and numbers | Factsheets; Worksheets and interactive games. | Practical, common-sense **maths** for adults. Choose a topic area. Numbers Use number lines, decimals and negative numbers; Calculation Add, subtract, multiply and divide; Percent and fractions Work out parts of amounts; Measuring Use the best tools and units of measurement for the job. Data Handling - charts | British Broadcasting Corp. BBC | <http://www.bbc.co.uk/skillswise/topic-group/graphs> |
| All thing data and number. | Clear instruction and interactive led website. | A very attractive website that provides concise definition of the key terms, glossaries and interactive games that embed learning and create fun at the same time. | Math is Fun | <https://www.mathsisfun.com/data/index.html> |
| Worksheets to boost number sense | Worksheets, video instruction and flash-cards. | A most professional website that while largely caters for second-level does contain lots of resources for primary which can be used for QQI Level 1. | Corbett Maths. | <https://corbettmaths.com/5-a-day/> |
| **Theme/Topic: Shape & Space** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| A comprehensive compendium of teaching resources and professional development aids for the basic maths teacher | Book | The unique visual approach of *How to be Good at Maths*makes basic maths easier to understand than ever before with short, simple explanations that demystify even the most challenging topics | Carol Vorderman | <https://www.amazon.co.uk/How-be-Good-at-Maths-ebook/dp/B079X25T7D/ref=sr_1_1?s=books&ie=UTF8&qid=1525197121&sr=1-1&keywords=how+to+be+good+at+maths+carol+vorderman> |
| Definition and elucidation of mathematics terms with lots on shape and space | Book | *Maths, the basic Functional Skills* edition is full of great ideas that can be easily adapted onto simple and basic shape and space problems and exploratory lessons. | Haighton, Philips and Thomas. | <https://www.amazon.co.uk/Maths-Basics-Functional-Skills-E3-L2/dp/0748777008/ref=sr_1_1?s=books&ie=UTF8&qid=1525197323&sr=1-1&keywords=maths+the+basic+skills> |
| Definition of key terms in maths and shape and space. | Book – glossary/dictionary | *Illustrated Dictionary of Maths* is brightly and clearly illustrated. It includes a glossary of mathematical terms and symbols. It comes with internet-links to help learners find out more about maths. | Tori Large | <https://www.amazon.co.uk/Illustrated-Dictionary-Maths-Usborne-Dictionaries/dp/1409546969/ref=sr_1_2?s=books&ie=UTF8&qid=1525197720&sr=1-2&keywords=usborne+dictionary+of+maths> |
| Definition of key terms in maths and shape and space. | Book – glossary/dictionary | Chambers Adult Learners' Guide to Numeracy is a completely new book aimed at adults who lack confidence in their numeracy skills. | Chambers | <https://www.amazon.co.uk/Chambers-Adult-Learners-Guide-Numeracy/dp/055010321X/ref=sr_1_2?s=books&ie=UTF8&qid=1525198954&sr=1-2&keywords=chambers+dictionary+of+maths> |
| Definition of key terms in maths and shape and space. Exploring ideas and teaching methods. | Book | In a new edition, fully revised and updated to reflect key new curriculum topics and methods, *Maths for Mums and Dads*guides you through the basics of primary school maths and covers the dilemmas and problems you are likely to be confronted with, including basic geometry, shapes, symmetry and angles | Eastway and Askew | <https://www.amazon.co.uk/Maths-Mums-Dads-Rob-Eastaway-ebook/dp/B003ULP3NA/ref=sr_1_1?s=books&ie=UTF8&qid=1525199116&sr=1-1&keywords=maths+for+mums+and+dads> |
| Mastering the fundamentals of maths. | DVD or MP4 download | These and other skills are the veritable foundation on which all of mathematics rests. To master them is to unlock the door to new levels of confidence in dealing with the math of everyday life. | The Great Courses | <https://www.thegreatcourses.com/courses/mastering-the-fundamentals-of-mathematics.html> |
| Basics of shape and space | Book/workbook | Brushing up: 2 A Maths Workbook:  A stylish and essential book for the Level 1 tutor and learner detailing in an attractive fashion all the important descriptions and characteristics of 2d shapes. | National Adult Literacy Agency, Dublin, 2016 | <https://www.nala.ie/resources/brushing-2> |
| Shape and space the basics | Worksheets | A great worksheet resource that helps learners work with 2d shapes. | Super Teacher worksheets | <https://www.superteacherworksheets.com/symmetry.html> |
| Shape and space the basics | Worksheets | Exploring 2d shapes through a great variety of readily accessible and interesting worksheets | Numeracy World @ Teachingimage. | <http://teachingimage.com/shape-and-space-worksheets.php> |
| Essential shape and space worksheets. | Worksheets | A superb bank of worksheets that go through all the resources needed for interesting lesson in 2d and 3d shapes from everyday life. | Math Aid | <http://www.math-aids.com/Geometry/> |
| All things math incl. shape and space. | Interactive website | mathsisfun.com. Great website; fun to use with lots of great ideas and interactive exercises and quizzes for geometry, shape and space. | Math is Fun | <http://www.mathsisfun.com/geometry/index.html> |
| Shape and space worksheets/teaching ideas | Worksheets and collaborative ideas | Math-Drills.com. The website and content continues to be improved based on feedback and suggestions. | Math-Drills | <https://www.math-drills.com/> |
| Shape and Space + much more | Dynamic and interactive website | IXL delivers a deeply engaging learning experience—for all students in all years. | IXL | <https://ie.ixl.com/> |
| Shape and space in a real-life context | Website | Skillswise with the imprimatur of the BBC offers exceptional teaching ideas with great games and worksheets to boot | BBC, UK | <http://www.bbc.co.uk/skillswise/topic-group/shapes> |
| Shape and space in a real-life context. | Dynamic and interactive website | Google Earth allows teacher and student explore the world’s beautiful architecture which give an insight into the beauty of shape and space. For example, The Pentagon in the US is revealed in all its five-sided beauty. | Google | <https://earth.google.com> |
| Shape, Space and Geometry | Website | AA Math is always worth checking out for ideas and worksheets | AA Math | <http://www.aaamath.com/geo78_x4.htm> |
| Create your own quiz and flashcards | Website | Socrative is a lovely website that allows you to create bespoke quizzes in the topic that you wish | Socrative. The link opposite is an example of a quiz using some geometry, shape and space ideas | <https://b.socrative.com/login/teacher/> |
| Quizzes, flash-cards, presentations | Website | GoConqr is a really cool and dynamic website that allows you to create animated mind-maps, quizzes and presentations. This is really worth a check. | GoConqr | [www.goconqr.com](file:///C:\Users\jodriscoll\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\GXVL31F8\www.goconqr.com) |
| Shape & Space @Twitter | Social media | Twitter is an indispensable resource for accessing best expertise in maths/geometry teaching resources and ideas. Check out this website which lists all the best accounts to follow. | Twitter | <https://www.creativeeducation.co.uk/blog/20-top-tweeters-for-maths-teachers/> |
| Curating materials for shape and space | Social media | Pinterest is a wonderful curator of resources, links, images and worksheets and should be in the tool-kit of every adult educator. | Pinterest | <https://www.pinterest.ie/alipopper/math-shape-and-space/?lp=true> |
| Resource bank | Website | Corbett Maths is a wonderful website to support the numeracy tutor in all their work. | Corbettmaths | <https://corbettmaths.com/> |
| Problem Solving | Website and YouTube channel | The Art of Problem Solving will sate your appetite for all things maths. A wonderful resource. | Art of Problem Solving. U.S. | <https://artofproblemsolving.com/> |
| **Theme/Topic: Quantity & Number** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Recognising numbers  1-10 | Printable sheets | Relevant to content for Recognising Numbers 1 – 10 and developing number sense. Covers all Los. A free downloadable resource designed for U.K. teachers. | TES : | <https://www.tes.com/teaching-resource/recognising-numbers-1-10-3001594> |
|  | Numbers Worksheets and Flashcards | Relevant to content recognising numbers  1-10 and developing number sense. Includes writing numbers in words. | Sight Word Games | <http://www.sightwordsgame.com/sight-words-activities/number-worksheets/> |
|  | Need materials to create the game | Relevant to content recognising numbers  1-10 and developing number sense. Encourages number recognition by hiding part of the number and encouraging learner to guess. | Education. Com | <https://www.education.com/activity/article/hidden-numbers/> |
|  | Printable | Relevant to content for Recognising Numbers 1 – 10 and developing number sense by exploring simple shapes. Builds skills at recognising and continuing pattern and shape. | Study Ladder | <https://www.studyladder.com/games/activity/recognizing-and-continuing-repeating-patterns-3416> |
| Recognising patterns 1-5 and patterns to 10. | Activity creation suggestions and steps | Relevant to content for Recognising patterns 1-5 and then patterns to 10 and developing number sense, using counters and number bonding. | NZ Maths | <https://nzmaths.co.nz/resource/adding-and-subtracting-one-hand>  <https://nzmaths.co.nz/resource/five-frames>  <https://nzmaths.co.nz/resource/jumping-beans> |
| Recognising small whole numbers | Word problems to print and | Relevant to content - developing number sense. Develops proficiency with small whole numbers exploring what numbers add to 10 and using fingers for simple addition and subtraction. | The National Academies Press | <https://www.nap.edu/read/9822/chapter/8#188> |
| Order, recognising and manipulating small numbers. | Several resources both printable and to use online | Relevant to content for ordering, recognising and manipulating small numbers and developing number sense. Builds concepts such as greater than and less than. Subscription rqd. | Twinkl | <https://www.twinkl.co.uk/resources/numbers-number-system/counting-numbers-the-number-system-maths-key-stage-1/ordering-numbers> |
| Recognising numbers  1-10 and addition strategies | Printable ideas | Aid to understanding how different pairs of numbers can make the number 10. Colourful site, very useful for visual learners. | Yardley Primary School | <https://intranet.yardley.bham.sch.uk/Policies/Maths%20-%20Written%20Addition%20Policy.pdf> |
| Comparing Numbers with Base-10 Blocks | Printable ideas | Builds number and number sense by comparing numbers with Base-10 Blocks. Wide range of activities and resources including number cards, number lines. Builds on concepts of more and less. | Virginia Department of Education | <http://www.doe.virginia.gov/instruction/mathematics/elementary/number_sense_module/nns_grade2.pdf> |
| Matching numbers/ objects | Printable ideas | Relevant to content - developing number sense. Matching Dominos to numbers. This uses a pre-drawn line in which the values of the dots are included. You must place the domino on the correct box. There are many links from this site. | Days with Grey | <https://www.dayswithgrey.com/blog/domino-number-match-up-number-game> |
|  | Printable matching game | Relevant to content - developing number sense. Printable wheel which is split into sections. Player has to match numbered pegs to the wheel section | Days with Grey | <https://www.learning4kids.net/2015/11/08/free-printable-number-match-counting-wheel/> |
| Number bonding | Video | Teaching ideas for exploring and developing concepts of number bonding. | YouTube:  Tori Ricker | <https://www.youtube.com/watch?v=q9h4skGoWJ8> |
|  | Video for learners | Relevant to content for number bonding.  Excellent visual approach to explaining number bonding. Great for use with visual learners. | YouTube:  Jennifer Rizzo | <https://www.youtube.com/watch?v=uK1lv8LWdGs> |
|  | Video for learners | Relevant to content for number bonding to 10. Uses visual approach to explain number bonding | YouTube:  Ms Stewart | <https://www.youtube.com/watch?v=4_pTUVROoFg> |
| Counting | Game idea | Relevant to content – counting. Three 5-Minute Activities to Build Elementary Number Sense including finger counting, estimation and greater/lesser. | We Are Teachers: Maria Howard | <https://www.weareteachers.com/number-sense-activities/> |
| Using number games: developing number sense | Downloadable book | Booklet by the Teacher Education through School-based Support in India with games and activities to develop number sense.  This includes ideas which go beyond level 1. It recommends the type of activities which help, based upon teacher observation. | Tess: India | <http://www.open.edu/openlearncreate/pluginfile.php/134923/mod_resource/content/3/EM01_AIE_Final.pdf> |
| Counting 1-10 and recognising numbers | Printable ideas in either PDF or Word format | Relevant to content - Learning how to count 1- 10 and recognise the numbers. Aimed at children but could be used with adult learners. | NZ Maths | <https://nzmaths.co.nz/node/1802> |
| Good variety Including number games to print | Printable sheets from a booklet | YOU WILL HAVE TO SCROLL DOWN THROUGH THE BOOKLET TO FIND RELEVANT RESOURCES: Standards based Maths instruction intended for students with Intellectual Disabilities. Includes colourful ideas for teaching concepts includes  number games, number lines, shapes | Karen Ross-Brown, BS, MLS Ben Satterfield, Ed.D | <http://www.gatfl.gatech.edu/tflwiki/images/4/48/TFL_CREATE_Standards_Math_Webinar_Jan_2013_FINAL_2.pdf> |
| Excellent multithemed resource | Printable Worksheets | Recognising patterns, shapes, number, number matching, basic addition, reading and writing numbers… this goes beyond level 1 if required | MYSELC | <http://www.myselc.org/printable-resources/cat_view/48-printable-resources/9-maths.html> |
| Multithemed | Printable worksheets | Covers all LOs  Shapes, recognising numbers from counting items, simple addition using pictures | Recycle thoroughly | <http://recycleroughly.com/navigate/math-worksheets-for-special-needs-students.html> |
| Multithemed | Interactive online games | Counting to 10 – forwards and backwards  Shapes , Addition, subtraction. Can use online games or you could printout from the screen. | IXL | <https://ie.ixl.com/math/sr-infants> |
| Multithemed |  | Matching numbers and a number of items, counting, shapes, basic addition, subtraction | Math Only | <http://www.math-only-math.com/kindergarten-math-activities.html> |
| Number order | Printable worksheets | Find the missing numbers. Learners identify the missing numbers in sequences. Good for counting and number pattern recognition. | Math Only | <http://www.math-only-math.com/missing-numbers-worksheet.html> |
| Multithemed | Online Games | Maths resources including basic addition and subtraction. All levels catered for and it is very colourful. You can track your score on the online games. | Maths Is Fun | <https://www.mathsisfun.com/algebra/word-questions-addition.html> |
| Counting / Recognising numbers/ | Downloadable and printable sheets | Counting up to 10  Backwards and forwards  Comparing and ordering | Snappy Maths | <http://www.snappymaths.com/counting/counting2/counting2.htm> |

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| **Theme/Topic: Problem solving** | **Type** | **Relevance** | **Author/Source** | **Web Link** |
| Sorting by size | Printable ideas. | Relevant to content – comparing sizes: small medium large. Creates a visual Venn diagram of any object. The example given is ribbons. | Days with Grey | <https://www.learning4kids.net/2015/12/29/fireworks-theme-maths/> |
| Greater/ Smaller | Games ideas | Relevant to content: identifying greatest or smallest number. Game 2 of 3 five minute activities. | We Are Teachers | <https://www.weareteachers.com/number-sense-activities/> |
| Ordering numbers | Printable ideas | Relevant to content: Ordering numbers. Practical activity on number order which will suit learners who like to learn by doing. | NZ Maths | <https://nzmaths.co.nz/content/ordering-numbers> |
| Problem solving | Printable worksheets | Relevant to content: Basic maths problem solving. Word problem worksheets which target adding single digit numbers. | K5 Learning | <http://www.k5learning.com/free-math-worksheets/first-grade-1/word-problems/adding-single-digit-numbers> |
| Counting money | Printable worksheet | Relevant to content: Counting small amounts of money. US based resource - **You will have to remember to change some of the money words!** | K5 Learning | <http://www.k5learning.com/worksheets/math/grade-1-counting-money-word-problems-a.pdf> |
| Analyse simple word problems in maths | Printable resource | Relevant to content  Word problems to analyse | The Measured Mom | <https://www.themeasuredmom.com/fun-problem-solving-activity-kids-1st-2nd-grade/> |
| Good variety Including number games to print | Printable sheets from a booklet | YOU WILL HAVE TO SCROLL DOWN THROUGH THE BOOKLET TO FIND RELEVANT RESOURCES:  Grouping of items  Recognising shapes  Basic geometry | Karen Ross-Brown, BS, MLS Ben Satterfield, Ed.D | <http://www.gatfl.gatech.edu/tflwiki/images/4/48/TFL_CREATE_Standards_Math_Webinar_Jan_2013_FINAL_2.pdf> |
| Money: All Learning Outcomes. | Printable worksheets | Excellent customizable money worksheets. This website lets you create and print your own money worksheets | Maths Aid.com | <http://www.math-aids.com/Money/> |
|  | Printable worksheets in colour | Good variety of money worksheets includes coins and notes. | Home school Math | <https://www.homeschoolmath.net/worksheets/european-money.php> |
|  | Euro money games online | Very good resource. Assists with understanding money amounts.  Includes counting money, correct change, exchanging coins for smaller value coins. | Teaching Money | <http://www.teachingmoney.co.uk/eurosite/euroindex.html> |
| Multithemed | Printable Worksheets | Excellent multi-themed resource includes all Learning Outcomes including time, grouping items. | MYSELC | <http://www.myselc.org/printable-resources/cat_view/48-printable-resources/9-maths.html> |
| Multithemed | Printable worksheets | Covers all Learning Outcomes. Wide range of maths resources including buying food and understanding time. Comprehensive resource designed for learners with additional needs but useful with many learners at this level. | Recycle thoroughly | <http://recycleroughly.com/navigate/math-worksheets-for-special-needs-students.html> |
| Calendars and time | Printable worksheets and games | Especially relevant to Learning OutcomePS3.  Calculating time, days etc. using addition and subtraction. | Maths Drills | <https://www.math-drills.com/timeworksheets.php> |
| Multithemed | Interactive online games  Or you could print out from the screen | Recognising patters  Comparing sizes, numbers, weight, money – is there enough? Etc.  Classifying numbers, shapes, colours  Position, inside, outside etc.  Are things the same or different?  Number order  Maths word problems | IXL | <https://ie.ixl.com/math/sr-infants> |
| Multithemed | Printable worksheets | Ordering items and numbers  Sequences, time, odd thing out. Some of the resources are aimed at young children but careful selection will render ones that are equally useful with adults e.g. geometric shapes. | Math Only | <http://www.math-only-math.com/kindergarten-math-activities.html> |
| Jigsaw puzzles of various sizes | Online customisable jigsaw puzzle | Helps with problem solving and seeing the complete picture.  Which piece goes where  How the pieces fit together | Maths Is Fun | <https://www.mathsisfun.com/puzzles/jigsaw-puzzles-index.html> |
| Number symbols | Online game or questions can be downloaded | A quiz about different types of numbers:  As labels, size, how many digits? Teacher can read the questions as the literacy required is above L1. | BBC Bitesize | <http://www.bbc.co.uk/skillswise/quiz/ma02symb-l1-quiz> |
| Multi-themed | Downloadable, PDF, Word, PowerPoint, Publisher etc | So many resources it covers all Learning Outcomes. A huge selection of real life maths word problems. A great source of resources for many QQI levels | Primary Resources | <http://www.primaryresources.co.uk/maths/mathsD1.htm> |
|  | Printable worksheet | Find out how many and use the correct sign, + x - / =. This is just one example from the above site – this activity increases maths vocabulary | Primary Resources | <http://www.primaryresources.co.uk/maths/pdfs/sumsinwords.pdf> |
| Weight | Interactive game online | Interactive game in which the learner can read the scales and input the weight shown. Develops understanding weight in g and kg | ICT Games | <http://www.ictgames.com/weight.html> |
| Comparing and ordering numbers | Printable sheets and interactive online games | Printable resources and online games that explore comparing and ordering numbers up to 10 , 20 and 100 including Which is the largest, or smallest? | Snappy Maths | <http://www.snappymaths.com/counting/ordering/ordering.htm> |
| General maths skills | Huge number of Printable mazes | Trying different strategies to work through the maze. Develops skills around exploration, estimation and enhances confidence in guessing and experimentation. | Krazydad | <https://krazydad.com/mazes/> |
| Maths vocabulary | Printable resource | Introduces basic maths vocabulary necessary for problem solving, plus questions which can be printed or completed online | English Language Centres | <https://www.ecenglish.com/learnenglish/lessons/maths-vocabulary> |
| Maths vocabulary | Online Video | Introduces basic maths vocabulary necessary for problem solving, plus questions which can be printed or completed online and maths symbols | YouTube:  My Little English Page | <https://www.youtube.com/watch?v=RqXGupqBQO4> |
| Maths vocabulary | Online Video | Introduces basic necessary words and the signs, plus fractions, greater than etc. Maths vocabulary for level 1 and level 2 | YouTube: English Lessons With Adam | <https://www.youtube.com/watch?v=1ia0LARVYT8> |
| Multi-themed | Printable online material | This site has lots of maths vocabulary for various QQI levels. Very colourful and user friendly.  Covers all Los. This page links to resources for Addition, subtraction, multiplication and division vocabulary | Maths Is Fun | <https://www.mathsisfun.com/numbers/division.html> |
| Maths Vocabulary | Downloadable resources, many free, some subscription | Maths vocabulary cards. Provides a large variety of vocabulary necessary for problem solving including dates, shapes and phrases. A very visual resource. | Twinkl | <https://www.twinkl.ie/resources/numeracy-maths/maths-vocab-cards> |
|  | Printable material | How to use Maths Vocabulary in problem solving. A full session plan with associated materials. | Visual thesaurus | <https://www.visualthesaurus.com/cm/lessons/using-key-words-to-unlock-math-word-problems/> |
|  | Printable from website | Key Words used in maths problems - table containing words for mathematical operations | IBCRS.COM | <http://lbcrs.org/common/pages/DisplayFile.aspx%3FitemId%3D3446744> |
|  | Short video | Problem-Solving Words for elementary Maths - A short explanation of basic maths vocabulary | YouTube:  Classroom Caboodle | <https://www.youtube.com/channel/UCsEkMtIieK4lNrMEdfD4hOA> |
| **Interpreting Word Problems** | Downloadable and printable sheets | Basic analysis of word problems with lots of examples! Uses riddles to help with problem solving. | PC Crest | <http://www.pcrest3.com/fopasl/15.pdf> |

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| **Name** | **Contact Information** |
| National Adult Literacy Agency (NALA) | h[ttp://www.nala.ie](https://www.nala.ie) |
| Special Education Support Service (SESS) | http://[www.sess.ie](file:///\\CETB-FPSRV\OfficeFolders$\FESS\FET%20Development%20Resource%20Lists\Phase%204%20Resource%20List\Submitted%20Resource%20Lists\To%20be%20Sccreened\Level%202\www.sess.ie) |
| The Maths Tutor | <https://www.themathstutor.ie/> |
| Open Learn at The Open University | <http://www.open.edu/openlearn/> |
| The Great Courses at The Teaching Company | <https://www.thegreatcourses.com/> |
| Scoilnet | <https://www.scoilnet.ie/> |
| Studyclix. | <https://www.studyclix.ie/> |
| The Math Tutor. | <https://www.themathstutor.ie/> |
| Open Learn at The Open University. | <http://www.open.edu/openlearn/> |
| Project Maths | <http://www.projectmaths.ie/> |
| Central Statistics Office | <http://www.cso.ie> |
| Art Teachers Association of Ireland | [www.artteachers.ie](http://www.artteachers.ie) |
| Design and Crafts Council of Ireland | [www.dccoi.ie](http://www.dccoi.ie) |
| Arts Council of Ireland | [www.artscouncil.ie](http://www.artscouncil.ie) |
| The Great Courses | <https://www.thegreatcourses.com/> |

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