

Some adult and youth numeracy (& literacy) resources & materials

Numeracy: Teaching Mathematics in Context (formerly Foundation Numeracy in Context) (Dave Tout)

Originally published by ACER Press as Foundation Numeracy in Context, and written by Dave Tout and Gary Motteram, this reference book/guide has been fully updated by Dave and republished as Numeracy: Teaching Mathematics in Context. The book argues the case for teaching maths in context and outlines different options and strategies for teaching maths and numeracy in real life contexts. See: <https://multifangled.com.au/> .

Building Strength in Numeracy (Beth Marr)

This free online resource revises and improves on the iconic numeracy resources 'Strength in Numbers' and 'Breaking the Maths Barrier', and other 'tried and true' numeracy teaching resources. It is a collection of activities that builds on and updates elements of the previous resources, as well as including many new ideas, activities and student practice exercises. The resource is accessible online for teachers to use in a range of settings. Available from: <http://www.valbec.org.au/building-strength-with-numeracy/index.htm>

VIDEOS: Adult Numeracy Teaching: More than Worksheets

A series of videos conducted by Keiko Yasukawa from University of Technology Sydney (UTS) that takes a collaborative, multi-modal approach and each session is practical and thought-provoking. Available through the Reading Writing Hotline: <https://www.readingwritinghotline.edu.au/adult-numeracy-teacher-training/>

Beth Marr videos – how to teach adult numeracy (all good!)

- Dismantling Maths Anxiety: <https://youtu.be/JOmBnkHDV2w?si=ReIP37leyQicEkzH>
- Interaction and Discussion: how to get students talking numeracy: <https://youtu.be/pg9jwMzquEU?si=jV-PI-5aL7QqXLBF>
- Cooperative Logic: structured problem solving: <https://youtu.be/CLdSE7HWDik?si=TfumIPX1w-FTmYgB>
- Making sense of fractions: <https://youtu.be/1tYfSmKPPp4?si=NipTWyb0vpXmZHQy>
- Making Sense of Subtraction: <https://youtu.be/OovAOiIVY9g?si=BDUIJfZKLZ9jmXq8>
- Guess, Estimate and Measure: https://youtu.be/DEIH1w6NXCo?si=gNX6W8u4Os9_PXfU
- Sense of Volume 1: <https://youtu.be/9tztG8dKTqw?si=D5uxxKI74MucDp3H>
- Sense of Volume 2: exploring metric units of volume: https://youtu.be/CfGCsrFsEP8?si=3A_dqNZeWLBsoHFY

Consumer Affairs Victoria, Consumer Stuff

Unfortunately, the Consumer Affairs Victoria *Consumer Stuff* free teacher resources in the areas of Maths, English and Commerce alongside Health and Wellbeing and Consuming Planet Earth are no longer available. But, for a downloadable copy of the maths resource (*Consumer Stuff – Maths*) go to: <https://multifangled.com.au/free-resources/>

VicRoads VCAL Road Safety Units (2006, updated 2011 and 2012)

These 11 units combine different aspects of road safety with literacy, numeracy and generic skills such as problem solving and working in teams. Each unit contains activity outlines with comprehensive guidance to teachers, worksheets and assessment record proformas. Published by VicRoads, the units are available to download free from <https://www.vicroads.vic.gov.au/safety-and-road-rules/road-safety-education/secondary-schools/vcal-road-safety-units> .

Having fun with maths: activities and games for developing maths language and skills (Dave Tout)

Published by Multifangled P/L [available from: <https://multifangled.com.au/>]. The games and activities in this book focus on the development of fundamental maths skills through co-operative group work and the use of hands-on materials, as well as on enjoyment and having fun in order to build confidence and overcome maths anxiety. Has a focus on supporting and encouraging the language of maths.

Car Costs (Dave Tout)

A numeracy and maths workbook based around the topic of cars and road safety. The resource was partly funded by the RACV. Called *Car Costs: a numeracy workbook*, it is available from

<https://multifangled.com.au/>,

Aspire Learning Resources

Aspire LR publish a range of adult literacy and numeracy materials, both paper-based and e-books, including some written against the Foundation Skills Training Package (FSK). See:

<https://aspirelr.com.au/training-packages/fsk-foundation-skills-v2-learning-resources> and

<https://aspirelr.com.au/training-packages/pre-employment-skills-learning-resources>

Multimedia

Clickview (incorporating the former *VEA videos*) have a range of materials and videos available, many based around maths in the real world. They include: *ALGEBRA: A Piece of Cake!*, *Algebraic Notation - Maths as a Foreign Language*, *Life by the Numbers series* and more. See:

<https://www.clickview.com.au/secondary/mathematics/>

Some suitable (adult and youth) L&N teaching websites

Having Maths Eyes: This Irish website, Having Maths Eyes, supports learners to change their view of mathematics as being simply something everyone just does in school. With maths eyes people see the mathematics they do every day so mathematics becomes real and meaningful.

<http://www.haveyougotmathseyes.com/>

SAFE-T1: This website has a range of information and activities (online and print based) about workplace health and safety. A number of the activities are designed to develop literacy skills. See www.safe-t1.net.au

BBC Skillswise and Bitesize: Literacy, numeracy, games, learner's stories and much more:

<http://www.bbc.co.uk/skillswise/>

<https://www.bbc.co.uk/bitesize/subjects/zjd8jty> (go here for all subjects:

<https://www.bbc.co.uk/bitesize/subjects>)

And some good school maths sites with some great ideas and activities:

<http://www.maths300.com/about.htm>

<https://nzmaths.co.nz/>

Jo Boaler's amazing website with videos, activities and more: <https://www.youcubed.org/>

<http://nrich.maths.org/frontpage>

<https://www.uts.edu.au/research-and-teaching/our-research/maths-inside>

Workplace numeracy materials

Some websites for free workplace numeracy (and LLN) resources is below (there used to be a lot more, but they were housed on the Government's LiteracyNet site which has been dismantled):

- <https://oggiconsulting.com/our-work/#Resources> for:
Oggi Consulting 2014, *Numeracy By Measure*. Building the Workplace Measurement Skills of VET Practitioners, Department of Industry, Canberra
Oggi Consulting 2013, *Numeracy in Focus*, DIICCSRTE, Canberra
Oggi Consulting 2013, *Numeracy in Practice*, DIICCSRTE, Canberra
- <https://www.ideasthatwork.com.au/what-works-for-lln/>
- <http://www.kbcabinetmaking.com.au/>

NCVER Numeracy Research Reports (note you will need to search for the titles on the NCVER publications website): <https://www.voced.edu.au/>

Tina Berghella & John Molenaar (2013) *Seeking the N in LLN*

Beth Marr & Jan Hagston, J. (2007). *Thinking beyond numbers: Learning numeracy for the future workplace.*

Lynne Gleeson (2005) *Economic returns to education and training for adults with low numeracy skills*

Gail FitzSimons, Susan Mlcek, Oksana Hull, Claire Wright (2005) *Learning numeracy on the job: A case study of chemical handling and spraying*

NCVER VOCEDPlus LLND collection

This recently (Sept 2023) collated collection brings together current and historical publications and resources related to research and practice in the language, literacy, numeracy, and digital literacy/skills (LLND) community. They include some of the materials that were housed on the Federal Government's LiteracyNet website. See: <https://www.voced.edu.au/special-collections-llnd-collection>

Financial literacy & banking

Financial Basics: <https://www.financialbasics.org.au/>

EssiMoney: <https://www.financialbasics.org.au/essi-money/about-register.aspx>

ASIC: <https://www.moneysmart.gov.au/>

And for AFL freaks and more:

Dave and colleagues were involved in a number of LLN resources funded through Federal Govt sources, such as *Football rules!* - a resource targeted at low level ACSF learners based around Australian Rules football, and one on Cars. Used to be all available online at LiteracyNET, but that does not seem to be available anymore. Two of these resources, and others, including *Rethinking Assessment*, are now available **free** on the Multifangled website at: <https://multifangled.com.au/>

Golden oldies

And keep an eye out for the following golden oldies (no longer available to access or purchase, but maybe libraries in TAFEs et al may still have copies or they may be on someone's shelves?):

- *Adult Numeracy Teaching*, Betty Johnston, Dave Tout
- *Breaking the Maths Barrier: A kit for building staff development skills in adult numeracy*; Beth Marr, Sue Helme, Dave Tout
- *Mathematics: A new beginning. Resource book for teachers of adults returning to study*; Beth Marr, Sue Helme
- *Numeracy on the Line: Language based numeracy activities for adults*; Beth Marr, Chris Anderson, Dave Tout
- *Some Beginnings in Algebra*, Beth Marr, Sue Helme
- *Strength in Numbers: A resource book for teaching adult numeracy*; Ruth Goddard, Beth Marr, Judith Martin
- *The Adult Numeracy Handbook: Reframing adult numeracy in Australia*; Sheilagh Kelly, Betty Johnston, Keiko Yasukawa (eds)
- *The value of time: Numeracy for workers in manufacturing*; Ruth Goddard, Margaret Regan

Or look for them in the **NCVER VOCEDPlus LLND collection**: : <https://www.voced.edu.au/special-collections-llnd-collection>

And some of Dave’s articles and papers about adult/youth numeracy

Critical connections between Numeracy and Mathematics written for the Victorian Department of Education and Training (PDF available for download on the site)

https://www.education.vic.gov.au/school/teachers/teachingresources/discipline/maths/Pages/research_connectionsbetweennumeracyandmaths.aspx

FROM ACER’s Teacher Magazine:

Some recent articles

Article # and title	URL
<i>Real life numeracy contexts – the spark to ignite mathematics learning</i>	With Justine Sakurai & Carly Sawatzki: https://www.teachermagazine.com/au_en/articles/real-life-numeracy-contexts-the-spark-to-ignite-mathematics-learning
<i>Supporting critical numeracy and maths skills in teaching and learning</i>	With Justine Sakurai & Carly Sawatzki: https://www.teachermagazine.com/au_en/articles/supporting-critical-numeracy-and-maths-skills-in-teaching-and-learning
<i>Why numeracy and mathematics both count</i>	https://www.teachermagazine.com/au_en/articles/why-numeracy-and-mathematics-both-count

Older Series on teaching maths in context (June 2014 through to June 2016)

Article # and title	URL
1. <i>Lessons from PISA</i>	https://www.teachermagazine.com/au_en/articles/lessons-from-pisa
2. <i>Connecting maths to the real world</i>	https://www.teachermagazine.com/au_en/articles/connecting-maths-to-the-real-world
3. <i>Mathematical concepts – context is key</i>	https://www.teachermagazine.com/au_en/articles/mathematical-concepts-context-is-key
4. <i>Planning for context-based teaching</i>	https://www.teachermagazine.com/au_en/articles/planning-for-context-based-teaching
5. <i>Teaching in context – finding the starting point</i>	https://www.teachermagazine.com/au_en/articles/teaching-in-context-finding-the-starting-point
6. <i>Mathematical investigations: Refining and defining a task</i>	https://www.teachermagazine.com/au_en/articles/mathematical-investigations-refining-and-defining-a-task
7. <i>Targeting content to individual skills</i>	https://www.teachermagazine.com/au_en/articles/targeting-content-to-individual-skills
8. <i>Teaching in context – resources and materials</i>	https://www.teachermagazine.com/au_en/articles/teaching-in-context-resources-and-materials
9. <i>Assessment in context-based teaching and learning</i>	https://www.teachermagazine.com/au_en/articles/assessment-in-context-based-teaching-and-learning
10. <i>The teacher as a facilitator and resource person</i>	https://www.teachermagazine.com/au_en/articles/the-teacher-as-a-facilitator-and-resource-person