

Numeracy for Inclusion

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Digital Learning



Maths4Us

- NIACE Inquiry into Numeracy in 2011 found that adults should be able to learn maths in a way that's more relevant to their everyday lives
- To help more people improve their maths skills, the [Maths4us](#) initiative brought together over 20 national organisations to take strategic action on adult maths in the UK



Why an App?

By 2015, [80% of people](#) accessing the internet will be doing so from mobile devices

In many European countries, Internet capable mobile devices already outnumber computers

“Tablets have gained traction in education because users can seamlessly load sets of apps and content of their choosing, making the tablet itself a portable personalized learning environment”

NMC Horizon Report 2011, 2013



App requirements

- Meets learner and tutor needs – co-design and development
- Learner centred – choose how and what they learn
- Fits with lifestyle - bite sized learning
- Dynamic content – interactive
- Addresses different learning styles - multimedia
- Encourages continual learning – gamification
- Engaging - real life context
- Anytime, anywhere learning – downloadable, any platform
- Useful in different learning contexts e.g. blended/ online
- Can be repurposed – Open Education Resource



Maths App Challenge

- Drew together teams of developers working with learners and adult learning tutors to develop apps for adults' numeracy
- Winner decided by public vote
- Funding used to develop app



Maths Everywhere, for everyone: An app to boost adult numeracy
<http://www.mathseverywhere.org.uk/>

Welcome to Maths Everywhere, an interactive learning tool to help deal with the numbers and calculations in everyday life.

SELECT YOUR LEVEL OF HELP:

EVERYDAY TOOLS	HOW TO WORK IT OUT	HAVE A GO
Quick answers to common problems. From sharing a restaurant bill to repaying a loan; you input the numbers and let the tool do the maths!	Learn how to do the calculations for yourself. Watch, listen and learn as animated tutorials guide you through step-by-step explanations.	Practice makes perfect. Here you can practise as much as you like and test yourself when you feel ready. You can even earn badges and share your results online

FEEDBACK

We are currently in BETA format and we'd love to hear your views re Maths Everywhere, by clicking the feedback button you can report any bugs and help us improve the app.

CONTINUE

to the Maths Everywhere web version.

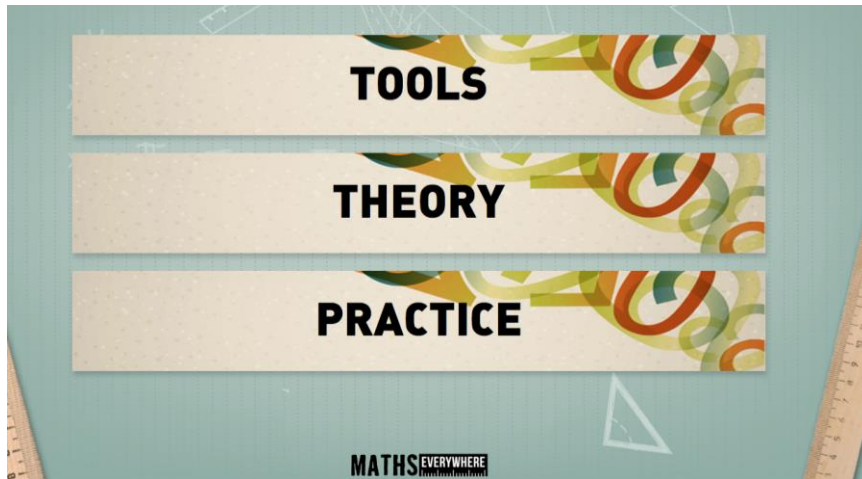
Available on the **App Store**

ANDROID APP ON **Google play**

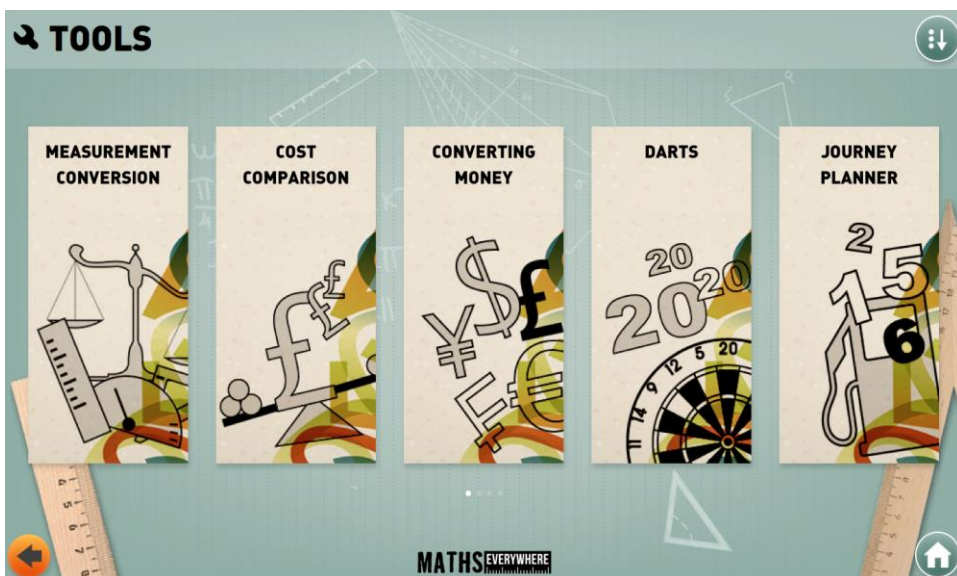
YouTube

niace promoting adult learning

Methodology



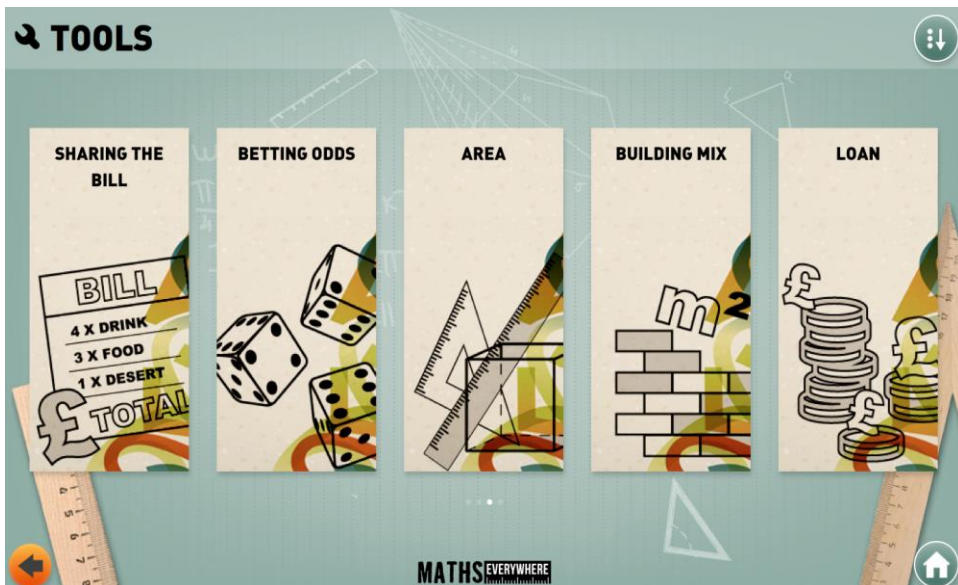
Tools



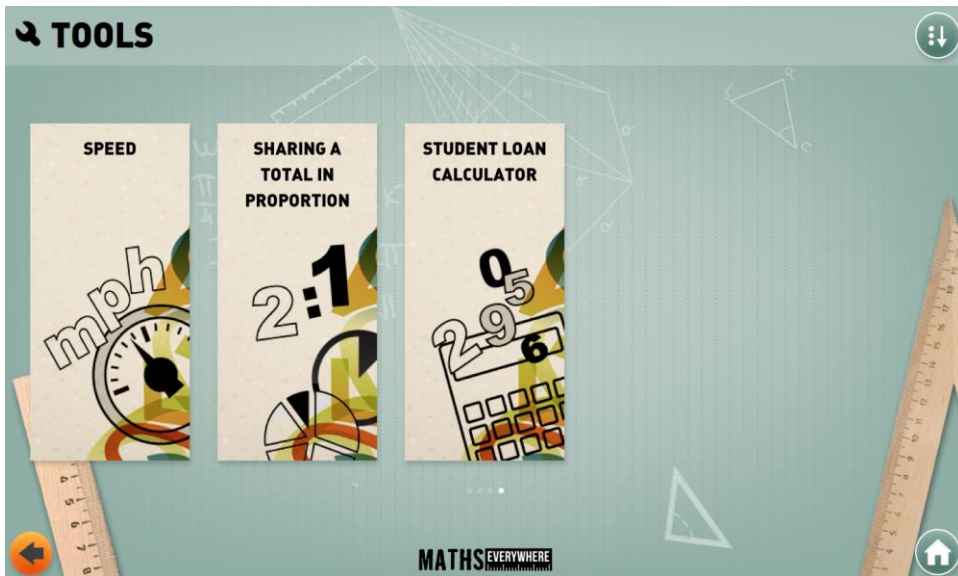
Tools 2



Tools 3



Tools 4



Home & Work: Journey Planner



Journey Planner 2

COST OF JOURNEY **MILES AVAILABLE**

Cost fuel per litre p

Vehicle MPG

Journey distance miles

No of journeys

CALCULATE

£ **038.88**

MATHS EVERYWHERE

Social: Darts

DARTS

1 2

3 60 60

501	501
-180	-94
-174	-180
0	0
147	227

CALCULATE

POSSIBLE FINISHES

1. D15

MATHS EVERYWHERE

Home: Cost Comparison

COST COMPARISON

Which unit of measurement are you comparing?

No Vs No

£ quantity £ quantity

CALCULATE

= £ for 1 = £ for 1

BETTER OFFER

Work: Building Mix

BUILDING MIX

Type of mix required

Area to be built? m² bricks

CALCULATE

YOU REQUIRE:

Cement kg

Sand kg

N.B.
water/plasticiser are dependent on conditions

MATERIAL COSTS

Cement € per 25kg

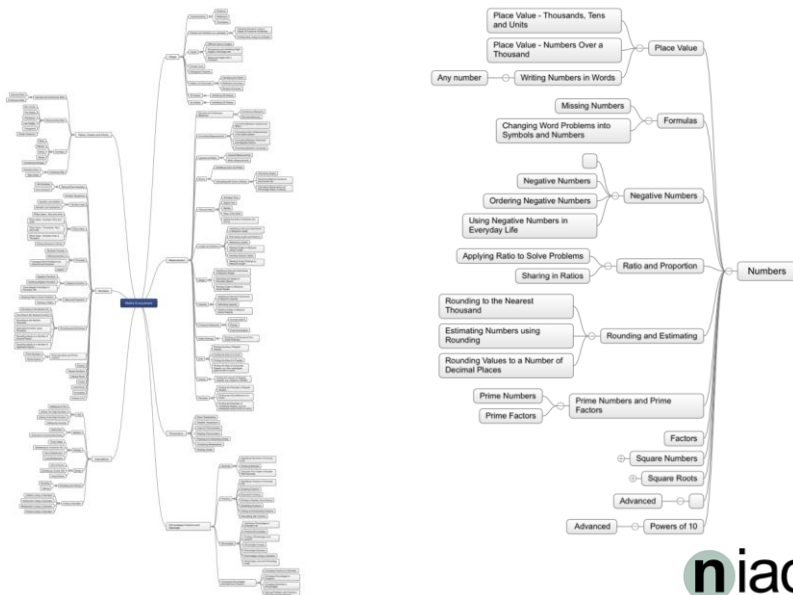
Sand € per 25kg

CALCULATE

Total cost €

MATHS EVERYWHERE

Mapping Tools to Learning



Levels

> THEORY

BEGINNER

INTERMEDIATE

ADVANCED

MATHSEVERYWHERE

Beginner Topics

> BEGINNER THEORY

SELECT






 ODD NUMBERS	 EVEN NUMBERS	 NUMBER LINE ADDITION	 NUMBER LINE SUBTRACTION	 PLACE VALUE, HUNDREDS, TENS AND UNITS
 WRITING NUMBERS IN WORDS	 CHANGING A WORD PROBLEM INTO A SUM	 ROUNDING TO THE NEAREST 10	 ROUNDING TO THE NEAREST 100	 ESTIMATING TOTALS USING ROUNDING TO THE NEAREST 10

MATHS EVERYWHERE

Intermediate Topics

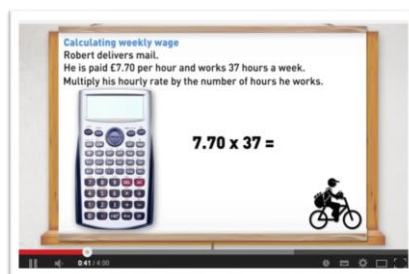
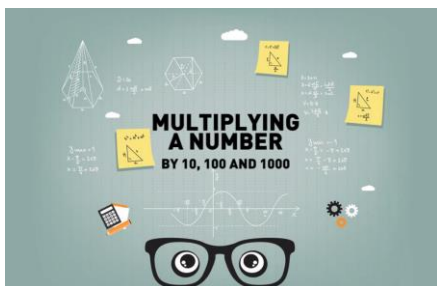
> INTERMEDIATE THEORY

SELECT

 ADDITION - ADDING 4 DIGIT NUMBERS	 DIVIDING NUMBERS BY 10, 100 AND 1000	 MULTIPLYING BY MULTIPLES OF 10 AND 100	 MULTIPLYING BY 10, 100 AND 1000	 SHORT MULTIPLICATION - THE GRID
 SHORT MULTIPLICATION	 SHORT DIVISION	 SUBTRACTION - SUBTRACTING 4 DIGIT NUMBERS	 CHANGING FRACTIONS TO DECIMALS	 CHANGING PERCENTAGES INTO FRACTIONS

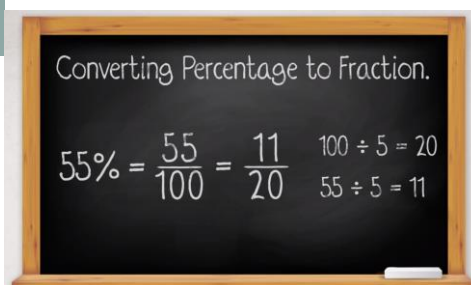
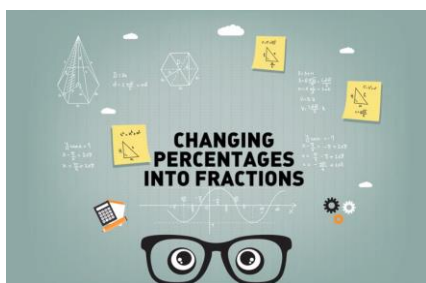
MATHS EVERYWHERE

Learning Videos



niace
promoting adult learning


Learning Videos














niace
promoting adult learning

Online & Offline Learning


> INTERMEDIATE THEORY

DOWNLOAD  CANCEL

				
ADDITION - ADDING 4 DIGIT NUMBERS	DIVIDING NUMBERS BY 10, 100 AND 1000	MULTIPLYING BY MULTIPLES OF 10 AND 100	MULTIPLYING BY 10, 100 AND 1000	SHORT MULTIPLICATION - THE GRID
				
SHORT MULTIPLICATION	SHORT DIVISION	SUBTRACTION - SUBTRACTING 4 DIGIT NUMBERS	CHANGING FRACTIONS TO DECIMALS	CHANGING PERCENTAGES INTO FRACTIONS



MATHS EVERYWHERE

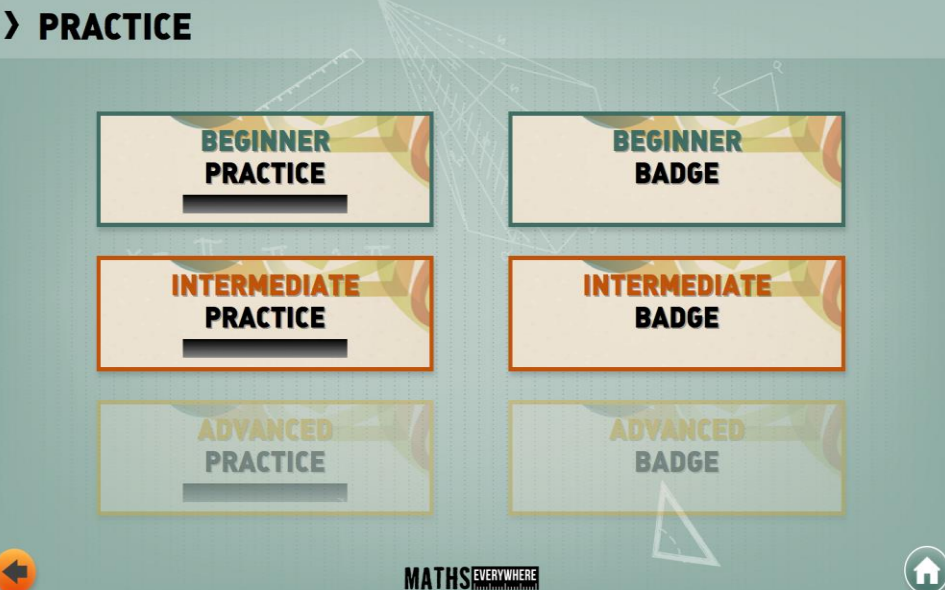


Assessment: Practice & Badges

> PRACTICE

BEGINNER PRACTICE	BEGINNER BADGE
INTERMEDIATE PRACTICE	INTERMEDIATE BADGE
ADVANCED PRACTICE	ADVANCED BADGE

MATHS EVERYWHERE



Beginner Practice

> **BEGINNER PRACTICE**

PRACTICE

NUMBERS

CALCULATIONS

FRACTIONS AND DECIMALS

MEASUREMENT

MATHS EVERYWHERE

Practice

> **MONTHS**

PRACTICE > MEASUREMENT > TIME & DATE > MONTHS

Question 1

1. Put the months of the year in the correct order:

January	February	March	April
December	November	May	July
September	August	October	June

SUBMIT

MATHS EVERYWHERE

Practice 2

> SUBTRACTING TWO DIGIT NUMBERS, INVOLVING BORROWING

PRACTICE > CALCULATIONS > SUBTRACTION > SUBTRACTING TWO DIGIT NUMBERS, INVOLVING BORROWING

Question 1 2 3


1. Daniel has **£92** in his bank account. He goes out shopping and spends **£33** on clothes.

How much does he have left?

Answer = £

SUBMIT

MATHS EVERYWHERE




Feedback: Correct

MATHS
EVERYWHERE
BEGINNER

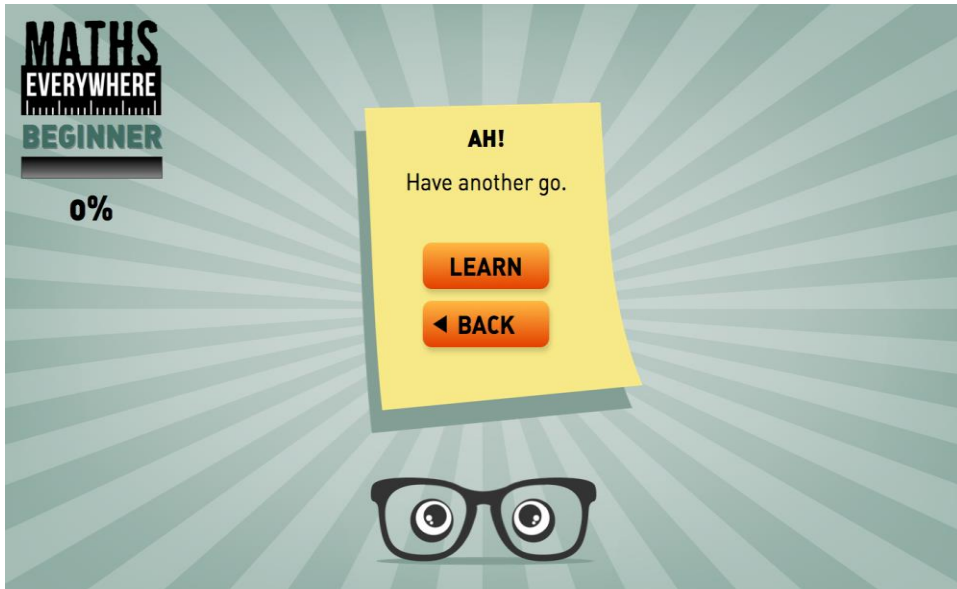
0%

GREAT!
Keep on going!

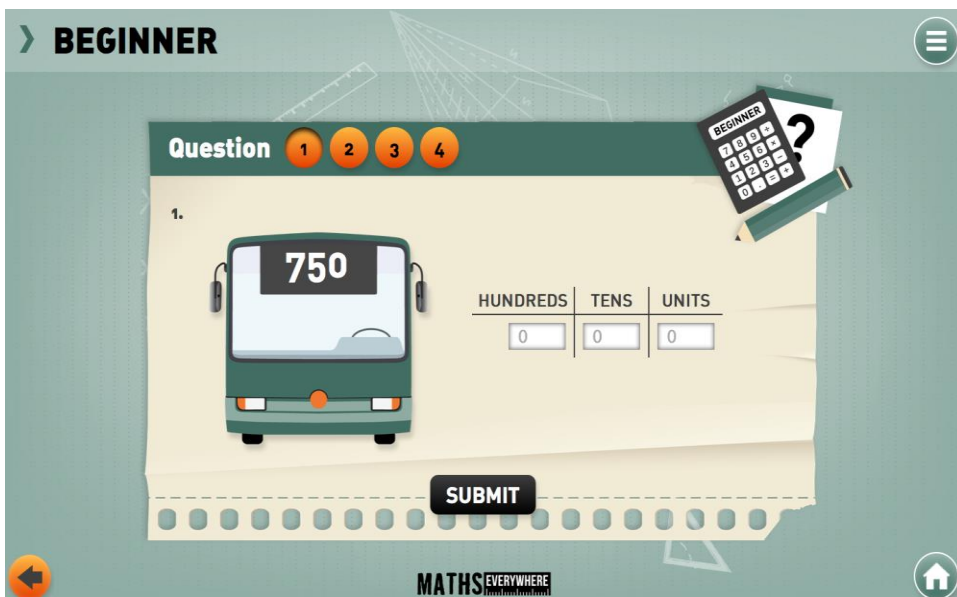
NEXT ▶



Feedback: Incorrect



Beginner Badge



The future

- Other learning contexts
 - Offender learning
 - Financial capability
 - Vocational learning
- Linking to a provider near you!
- Messaging – quiz of the month, keep in touch



Technology and maths

- The options for how, when and where adults learn has changed dramatically over the past few years, and those choices will continue to be more wide-ranging and innovative in the future. Maths is no exception
- Maths everywhere is available for you and your learners
- <http://www.mathseverywhere.org.uk/>
- Google Play and App store
- Code: www.mathschampions.net
- Videos: <https://www.youtube.com/channel/UCV-Y24-8LLU7WITc7S4CYow>

