E3-L1 World Maths (for World Maths Day or any day!)

Answers | Functional Maths mapping | Teaching notes

It is 874 miles from Land's End to John O'Groats. Write this in words . Eight hundred and seventy four miles

Round the number to the nearest ten miles. 880

3/60 of people in the UK live in Wales. Can you make this fraction smaller? 1/20

What is this as a decimal? (Think money!) 0.05

In which months was it hotter than 25°C in Morocco? Jun, Jul, Aug, Sep

What was the difference in temperature between London and Morocco in November? 10°C

Which was the hottest month in Morocco? August

Which was the hottest month in London?July

You book a flight to India. It costs £379. How much change do you get from £400? £21

It is not a direct flight. It stops in Bahrain at 1905 and leaves at 2135. Write these times in two other ways.

7.05pm and 9.35pm Five past seven and twenty five to ten

How long do you spend in Bahrain? 2 ½ hrs

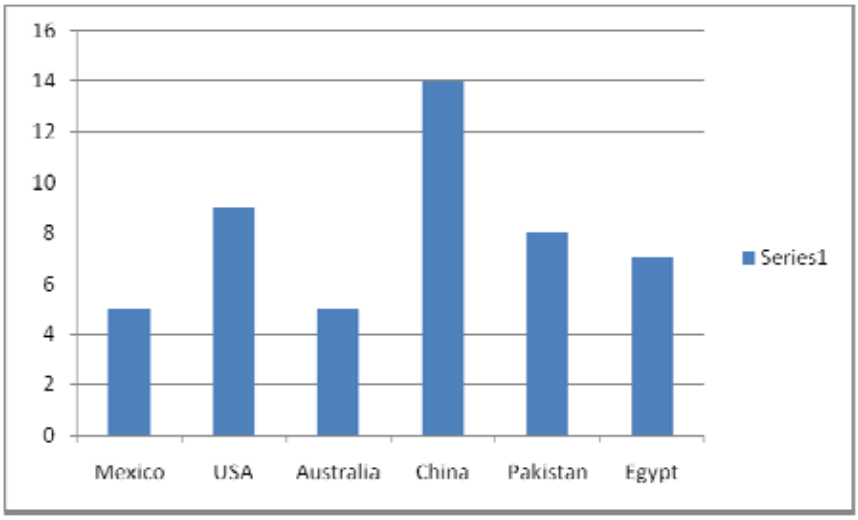
You decide to save up for your plane ticket. You can afford to save £25 a week from your job. How many weeks will it take for you to save up for your ticket? 16 weeks

Look at the calendar. When will you be able to go? Answer will vary

The literacy rate in Peru is 87.7%. Round this to the nearest whole number. 88%

A lock keeper on The Panama Canal keeps a tally of the number of ships that pass through. He wants to keep a record of the different countries they come from.

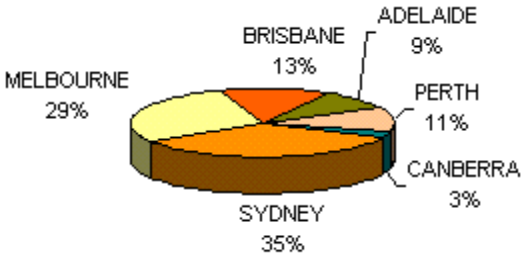
Suitable bar chart



Country	Number
Mexico	5
USA	9
Australia	5
China	14
Pakistan	8
Egypt	7

It is 11680 miles from London to Wellington in New Zealand. Round this number to the nearest thousand. 12000

There are 320 islands in Fiji. 105 of these are inhabited. How many are not inhabited? 215



What kind of graph is this? Pie chart

Which city has the highest population? Sydney

What is missing from the graph? Title

She has built a model of the new country to show people. The model is 2metres long, 60cm wide and the mountains are 45cm high. Which of these display cases could she fit it in?

a) Height 45cm Length 1.5m Width 60cm

b) Height 50cm Length210cm Width 75cm

c) Height 50cm Length 2m Width 65cm

Kindly contributed by Carrie Bray, Northampton College. For related resources such as the question sheet, search for Carrie on www.skillsworkshop.org
For teaching ideas and further curriculum links visit the resource description page (search for World Maths) at www.skillsworkshop.org

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Entry 3 and Level 1 Adult Numeracy

This resource covers many aspects of adult numeracy (whole numbers, money, division, time, etc.). For related resources and further curriculum links visit the resource description page at www.skillsworkshop.org

Functional Mathematics

This resource is ideal for underpinning many Functional Maths coverage and range statements at Entry 3 and Level 1 (see highlighted areas of the table below). However, in Functional Maths exams it is the process skills that are assessed; these are key to successful Functional Maths teaching and learning and must always be developed and stressed during teaching (see next page).

Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels & Adult Numeracy standards.
Highlighting indicates the main coverage and range skills covered in this resource, although these will vary with the student group and how the resource is used by the teacher.

Level 1

- understand and use whole numbers and understand negative numbers in practical contexts
- add, subtract, multiply and divide whole numbers using a range of strategies
- understand and use equivalences between common fractions, decimals and percentages
- add and subtract decimals up to two decimal places
- solve simple problems involving ratio, where one number is a multiple of the other
- use simple formulae expressed in words for one- or two-step operations
- use data to assess the likelihood of an outcome
- solve problems requiring calculation, with common measures, including money, time, length, weight, capacity & temperature
- convert units of measure in the same system
- work out areas and perimeters in practical situations
- construct geometric diagrams, models and shapes
- extract and interpret information from tables, diagrams, charts and graphs
- collect and record discrete data and organise and represent information in different ways
- find mean and range

Entry 3

- add and subtract using three-digit numbers
- solve practical problems involving multiplication and division by 2, 3, 4, 5 and 10
- round to the nearest 10 or 100
- understand and use simple fractions
- understand, estimate, measure and compare length, capacity, weight and temperature
- understand decimals to two decimal places in practical contexts
- recognise and describe number patterns
- complete simple calculations involving money and measures
- recognise and name simple 2D and 3D shapes and their properties
- use metric units in everyday situations
- extract, use and compare information from lists, tables, simple charts and simple graphs

References: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.* http://www.ofqual.gov.uk/files/2009-11-functional-skills-criteria-for-mathematics.pdf
Further functional skills documents available at http://www.ofqual.gov.uk/

Ideas for developing process skills

Encourage students to:

- highlight information they need, cross out unneeded information
- show all their working out (note that calculators are permitted at all levels of FM assessment but learners should get into the habit of recording their calculations)
- check all their calculations or procedures and show proof that they have done so
- draw conclusions
- discuss and justify their choice of method and their answers
- explain their answers and conclusions to others – verbally and in writing
- investigate other options / situations (e.g. some question topics could be researched on the web)
- create new questions about given information and try them out on other students
- mark each other's work

Process Skills (all levels)		
Representing – selecting the mathematics and information to model a situation	**Analysing** – processing and using mathematics	**Interpreting** – interpreting and communicating the results of the analysis
Skill Standards (Level 1)		
• understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine • identify and obtain necessary information to tackle the problem • select mathematics in an organised way to find solutions	• apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes • use appropriate checking procedures at each stage	• interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations
Skill Standards (Entry 3)		
• understand practical problems in familiar contexts and situations • begin to develop own strategies for solving simple problems • select mathematics to obtain answers to simple given practical problems that are clear and routine	• apply mathematics to obtain answers to simple given practical problems that are clear and routine • use simple checking procedures	• interpret and communicate solutions to practical problems in familiar contexts and situations