

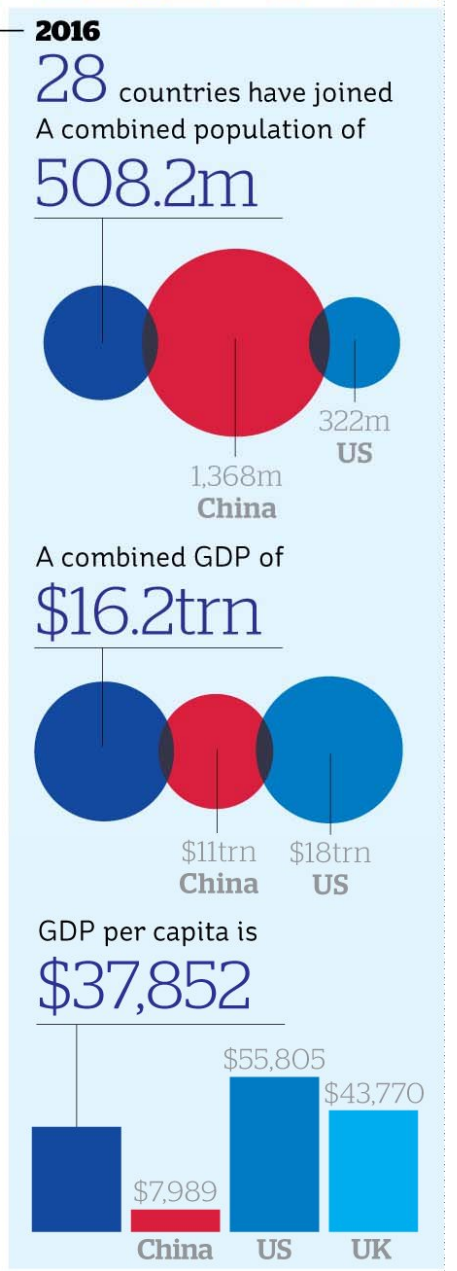
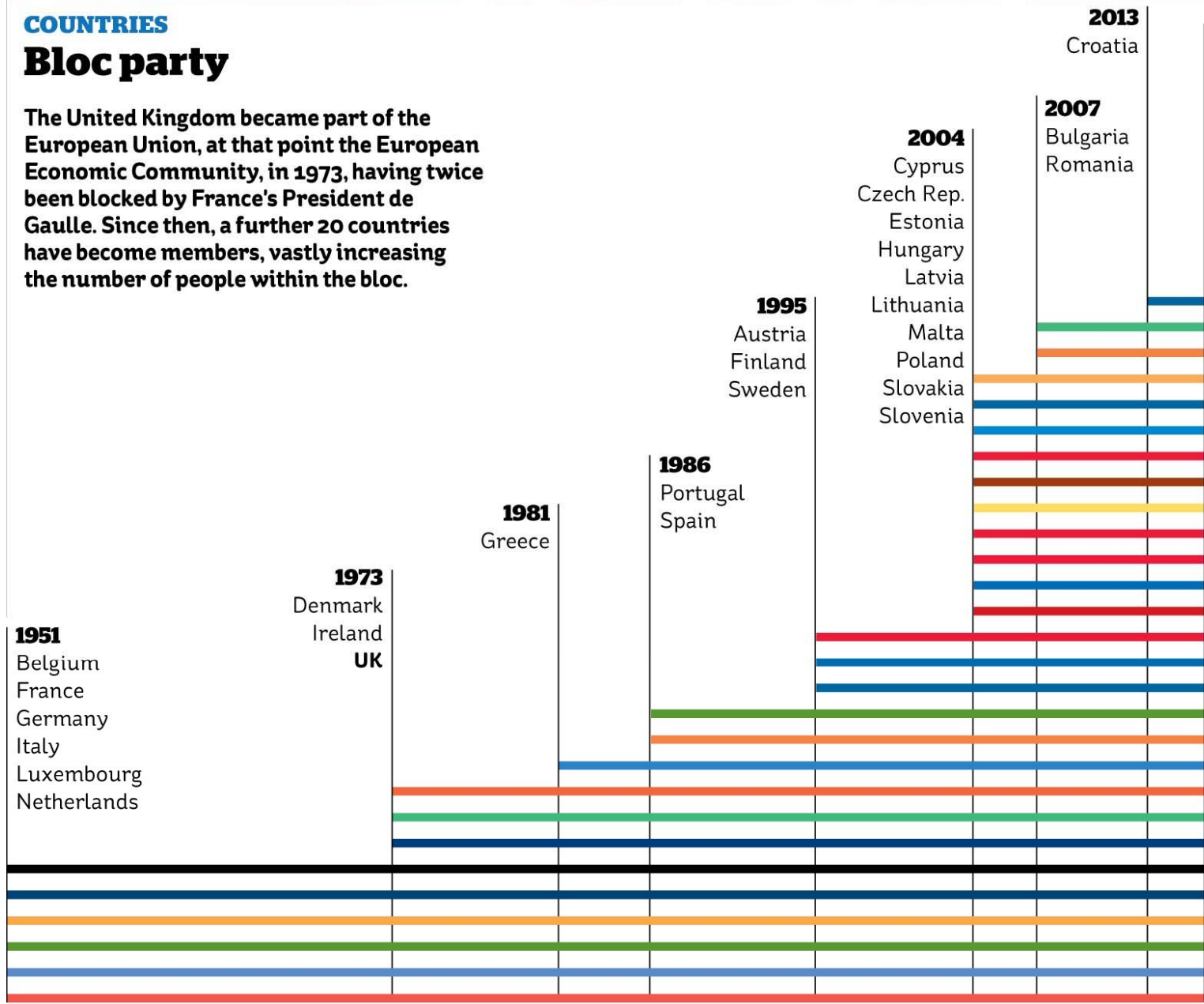
Source: The I newspaper <https://twitter.com/iNewsGraphics/status/745971362829852672>



**COUNTRIES**

**Bloc party**

The United Kingdom became part of the European Union, at that point the European Economic Community, in 1973, having twice been blocked by France's President de Gaulle. Since then, a further 20 countries have become members, vastly increasing the number of people within the bloc.





Source: The I newspaper <https://twitter.com/iNewsGraphics/status/745971362829852672>

**Functional Maths (L1-2)**

**Entry 3**

- 1. a) How many countries are in the European Union (EU) now? \_\_\_\_\_
- b) How many countries were in the EEC in 1951? \_\_\_\_\_
- c) Which two countries joined the EEC at the same time as the UK? \_\_\_\_\_
- d) In which year did the most countries join the EU? \_\_\_\_\_
- e) What colour is used to represent China? \_\_\_\_\_
- f) Is China in the EU? \_\_\_\_\_

**Level 1**

- 2. Write \$7,989 in words. \_\_\_\_\_
- 3. Calculate the missing number in each sentence. **Show your working out.**
  - a) Malta joined the EU \_\_\_\_\_ years after the UK joined.
  - b) Portugal and Spain joined the EU \_\_\_\_\_ years before Croatia.
- 4. Which country has the highest GDP per capita? \_\_\_\_\_
- 5. What is the population of the US? Write this out fully in: a) numbers      b) words
  - a) \_\_\_\_\_ b) \_\_\_\_\_

**Level 2**

- 6. Write these amounts out in full, using only numbers. a) 508.2m      b) \$18 trn
  - (a) \_\_\_\_\_ (b) \_\_\_\_\_
- 7. Calculate the difference between the populations of the EU and the US. **Show your working out.**
- 8. a) Calculate the mean average population of each EU country in 2016. **Show your working out.**
  - b) Comment on your answer.

**FUNCTIONAL ENGLISH Coverage and Range statements (indicative only)**

Coverage and range statements provide an indication of the type of content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent (school) National Curriculum levels and the Adult Literacy standards. ✓ indicates the main coverage and range skills that are (or can be) covered in this resource. However, these will vary with the student group and how the teacher uses the resource.

**Reference:** Ofqual (2009), *Functional Skills criteria for English: Entry 1, Entry 2, Entry 3, level 1 and level 2.*

<https://www.gov.uk/government/publications/functional-skills-criteria-for-english>

**Entry 3 Reading skill standard:** Read and understand the purpose ✓ and content of straightforward texts that explain, inform and recount information

**Coverage and range statements**

- a) Understand the main points of texts
- b) Obtain specific information through detailed reading
- c) Use organisational features to locate information ✓
- d) Read and understand texts in different formats using strategies and techniques appropriate to task ✓

**Level 1 Reading skill standard:** Read and understand a range of straightforward texts

**Coverage and range statements**

- a) Identify the main points and ideas and how they are presented in a variety of texts ✓
- b) Read and understand texts in detail
- c) Utilise information contained in texts ✓
- d) Identify suitable responses to texts

**Level 2 Reading skill standard:** Select, read, understand and compare texts and use them to gather information, ideas, arguments and opinions.

**Coverage and range statements**

- a) Select and use different types of texts to obtain and utilise relevant information
- b) Read and summarise, succinctly, information/ideas from different sources ✓
- c) Identify the purposes of texts and comment on how meaning is conveyed ✓
- d) Detect point of view, implicit meaning and/or bias
- e) Analyse texts in relation to audience needs and consider suitable responses ✓

**Functional English (L1-2)**

1. bloc – a group of countries that work together or have common interests.  
 per capita – for each person (Latin for “per head” )
2. Main purpose. To inform / tell the reader when each member country joined the EU.
3. Any two from below – other answers may be possible.
  - (a) Coloured / enlarged / bold fonts – draw attention to key figures and information.
  - (b) Charts (bar charts, area bubbles) make the information easy to understand & memorable. The main bar chart also reinforces the information in the short accompanying text.
  - (c) Headings and captions – stand out and make it easier to find information.

4. What was the European Union (EU) called in 1973? European Economic Community (EEC).
5. [Suggested answer only]  
**Members of the EU - when did they join?**  
 The EEC began in 1951 when Belgium, France, Germany, Italy, Luxembourg and the Netherlands combined forces. Next to join, in 1973, was the United Kingdom, along with Ireland and Denmark.  
 In the past 35 years, the number of members has swelled to 28. Croatia was the last to join in 2013.
6. The bar colour is based on a major colour from that country’s national flag. E.g., the Belgian flag is black, yellow and red. The Irish flag is green, orange and white.

**Functional Maths (E3-L1)**

**Entry 3**

- 1a) How many countries are in the European Union (EU) now? 28
- b) How many countries were in the EEC in 1951? 6
- c) Which two countries joined the EEC at the same time as the UK? Denmark & Ireland
- d) In which year did the most countries join the EU? 2004
- e) What colour is used to represent China? Red
- f) Is China in the EU? No

**Level 1**

2. Write \$7,989 in words. Seven thousand nine hundred and eighty nine dollars.
3. Calculate the missing number in each sentence.
  - a) Malta joined the EU 31 years after the UK joined. (2004 - 1973 = 31)
  - b) Portugal and Spain joined the EU 27 years before Croatia. (2013 - 1986 = 27)
4. a) Which country has the highest GDP per capita? The US  
 b) What is this rounded to the nearest thousand dollars? \$55,805 rounds to \$56,000
5. What is the population of the US? Write this out fully in a) numbers and b) words.
  - a) 322,000,000
  - b) Three hundred and twenty two million

**Functional Maths (continued) Level 2**

6. Write these amounts out in full, using only numbers.  
 a) 508.2m **508,200,000**    b) \$18 trn **\$18,000,000,000,000**  
 7. Calculate the difference between the populations of the EU and the US. **Show your working out.**  $508.2 \text{ m} - 322 \text{ m} = 508.2 - 322.0 = 186.20 = 186.2 \text{ million} (186,200,000)$

8. a) Calculate the mean average population of each EU country in 2016.  $508.2\text{m} \div 28 = 18.15\text{m} (18,150,000)$ .  
 b) The mean doesn't give a 'typical' figure as the size (area) of each country varies hugely. The median might give a more typical figure (but cannot be calculated from the given information).

FUNCTIONAL MATHEMATICS 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 and the Adult Numeracy standards. ✓ indicates the main coverage and range skills covered in this resource, although these may vary with the student group and how the resource is used by the teacher.	
<b>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).</b>	
<b>Reference:</b> Ofqual (2009), <i>Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.</i> <a href="https://www.gov.uk/government/publications/functional-skills-criteria-for-mathematics">https://www.gov.uk/government/publications/functional-skills-criteria-for-mathematics</a>	
Entry Level 3	
a) add and subtract using three-digit numbers b) solve practical problems involving multiplication and division by 2, 3, 4, 5 and 10 c) round to the nearest 10 or 100 d) understand and use simple fractions e) understand, estimate, measure and compare length, capacity, weight and temperature f) understand decimals to two decimal places in practical contexts	g) recognise and describe number patterns h) complete simple calculations involving money and measures i) recognise and name simple 2D and 3D shapes and their properties j) use metric units in everyday situations k) extract, use and compare information from lists, tables, simple charts and simple graphs ✓
Level 1	
a) Understand and use whole numbers and understand negative nos. in practical contexts ✓ b) Add, subtract, multiply and divide whole numbers using a range of strategies ✓ c) Understand and use equivalences between common fractions, decimals and percentages d) Add and subtract decimals up to 2 decimal places e) Solve simple problems involving ratio, where one number is a multiple of the other f) Use simple formulae expressed in words for one- or two-step operations	g) Solve problems requiring calculation, with common measures, including money, time, length, weight, capacity and temperature ✓ h) Convert units of measure in the same system i) Work out areas and perimeters in practical situations j) Construct geometric diagrams, models and shapes k) Extract and interpret information from tables, diagrams, charts and graphs ✓ l) Collect and record discrete data and organise and represent information in different ways m) Find mean and range ✓ n) Use data to assess the likelihood of an outcome
Level 2	
a) understand and use positive and negative numbers of any size in practical contexts ✓ b) carry out calculations with numbers of any size in practical contexts, to a given number of decimal places ✓ c) understand, use and calculate ratio and proportion, including problems involving scale d) understand and use equivalences between fractions, decimals and percentages ✓ e) understand and use simple formulae and equations involving one or two operations f) recognise and use 2D representations of 3D objects	g) find area, perimeter and volume of common shapes h) use, convert and calculate using metric and, where appropriate, imperial measures i) collect and represent discrete and continuous data, using information and communication technology (ICT) where appropriate j) use and interpret statistical measures, tables and diagrams, for discrete and continuous data, using ICT where appropriate. k) use statistical methods to investigate situations ✓ l) use probability to assess the likelihood of an outcome

**References:** This resource also covers many **adult literacy and numeracy curriculum** elements.  
<http://www.excellencegateway.org.uk/content/etf1286> (literacy) <http://www.excellencegateway.org.uk/content/etf1075> (numeracy)

FUNCTIONAL MATHEMATICS PROCESS SKILLS			
Process Skills (all levels)	Entry 3 skill standards	Level 1 skill standards	Level 2 skill standards
<p><b>Representing</b></p> <p><i>Selecting the mathematics and information to model a situation</i></p> <ul style="list-style-type: none"> <li>■ Recognise that a situation has aspects that can be represented using mathematics</li> <li>■ Make an initial model of a situation using suitable forms of representation</li> <li>■ Decide on the methods, operations and tools, including ICT, to use in a situation</li> <li>■ Select the mathematical information to use</li> </ul>	<ul style="list-style-type: none"> <li>• Understand practical problems in familiar contexts and situations</li> <li>• Begin to develop own strategies for solving simple problems</li> <li>• Select mathematics to obtain answers to simple given practical problems that are clear and routine</li> </ul>	<ul style="list-style-type: none"> <li>• Understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine</li> <li>• Identify and obtain necessary information to tackle the problem</li> <li>• Select mathematics in an organised way to find solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Understand routine and non-routine problems in familiar and unfamiliar contexts and situations</li> <li>• Identify the situation or problems and identify the mathematical methods needed to solve them</li> <li>• Choose from a range of mathematics to find solutions</li> </ul>
<p><b>Analysing</b></p> <p><i>Processing and using mathematics</i></p> <ul style="list-style-type: none"> <li>■ Use appropriate mathematical procedures</li> <li>■ Examine patterns and relationships</li> <li>■ Change values and assumptions or adjust relationships to see the effects on answers in models</li> <li>■ Find results and solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Apply mathematics to obtain answers to simple given practical problems that are clear and routine</li> <li>• Use simple checking procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Apply mathematics in an organised way to find solutions to straight-forward practical problems for different purposes</li> <li>• Use appropriate checking procedures at each stage</li> </ul>	<ul style="list-style-type: none"> <li>• Apply a range of mathematics to find solutions</li> <li>• Use appropriate checking procedures and evaluate their effectiveness at each stage</li> </ul>
<p><b>Interpreting</b></p> <p><i>Interpreting and communicating the results of the analysis</i></p> <ul style="list-style-type: none"> <li>■ Interpret results and solutions</li> <li>■ Draw conclusions in light of situations</li> <li>■ Consider the appropriateness and accuracy of results and conclusions</li> <li>■ Choose appropriate language and forms of presentation to communicate results and solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret and communicate solutions to practical problems in familiar contexts and situations</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations</li> </ul>	<ul style="list-style-type: none"> <li>• interpret and communicate solutions to multistage practical problems in familiar and unfamiliar contexts and situations</li> <li>• I draw conclusions and provide mathematical justifications</li> </ul>