



**CAMBRIDGESHIRE
& PETERBOROUGH**
COMBINED AUTHORITY

Numeracy Levels and Provision in Cambridgeshire and Peterborough



Cambridgeshire County Council Business Intelligence (Research Team)
adulteducationbudget@cambridgeshire.gov.uk

Introduction

The following slides look at numeracy levels and provision in Cambridgeshire and Peterborough through a variety of different measures including

- ▶ National data from the 2011 Skills for Life Survey carried out by the then Department for Business Innovation and Skills
- ▶ Data on numeracy attainment and progress during compulsory education at Key Stage 2 and 4 as sourced via the Department for Education for the 2018/19 Academic year, the most recent data available.
- ▶ Ward level modelling of numeracy confidence and skills using an index developed by National Numeracy and Experian (2022)
- ▶ Data on how the existing Cambridgeshire and Peterborough Adult Education Budget has been used to deliver numeracy basic skills to adults in Cambridgeshire and Peterborough (for the 2019/20 and 2020/21 Academic Years)

Where possible, links to these sources have been made on the relevant pages of this slide pack.

Key Findings

Basic Skills Survey

- ❖ Fenland and Peterborough were the only local authorities in Cambridgeshire and Peterborough where over half of residents (54% for Fenland and 51% for Peterborough) were estimated as having a numeracy skills level of entry level and below.

Key Stage 2 - Proportion of Pupils reaching expected standard in Numeracy

- ❖ In 2019 a lower proportion of both Cambridgeshire (77% of pupils) and Peterborough (73% of pupils) Key Stage 2 pupils were reaching the expected numeracy standard than England as a whole (79%)
- ❖ When looking at individual schools there was a high degree of variability with the majority of schools in Cambridge and South Cambridgeshire having a higher proportion of students achieving the expected standard in maths than the England Average, whilst in Fenland and Peterborough the majority of schools had a lower proportion of pupils achieving the expected standard than England as a whole.

Key Stage 4 - Attainment and Progress in Numeracy

- ❖ In terms of both numeracy attainment and progress Cambridgeshire (Attainment 8 of 9.6 and Progress 8 score of 0.17) performed better in 2019 than Peterborough (Attainment 8 score of 8.1 and Progress 8 score of -0.13), and England (Attainment 8 Score as a whole 8.5)
- ❖ Again, there was a high level of regional disparity with South Cambridgeshire and East Cambridgeshire being the only local authorities where all schools with available data had higher numeracy attainment than England on average whilst in both Fenland (75% of schools listed) and Peterborough (62% of schools listed) most schools had lower numeracy attainment than the England average.

National Numeracy - Ward Level Numeracy Index of estimated numeracy skills and confidence

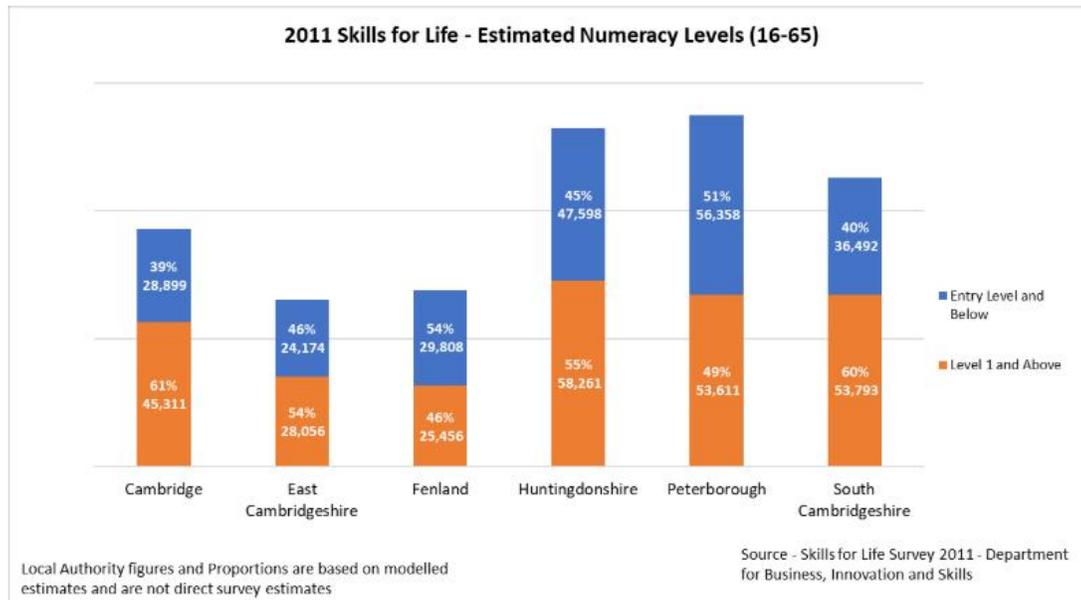
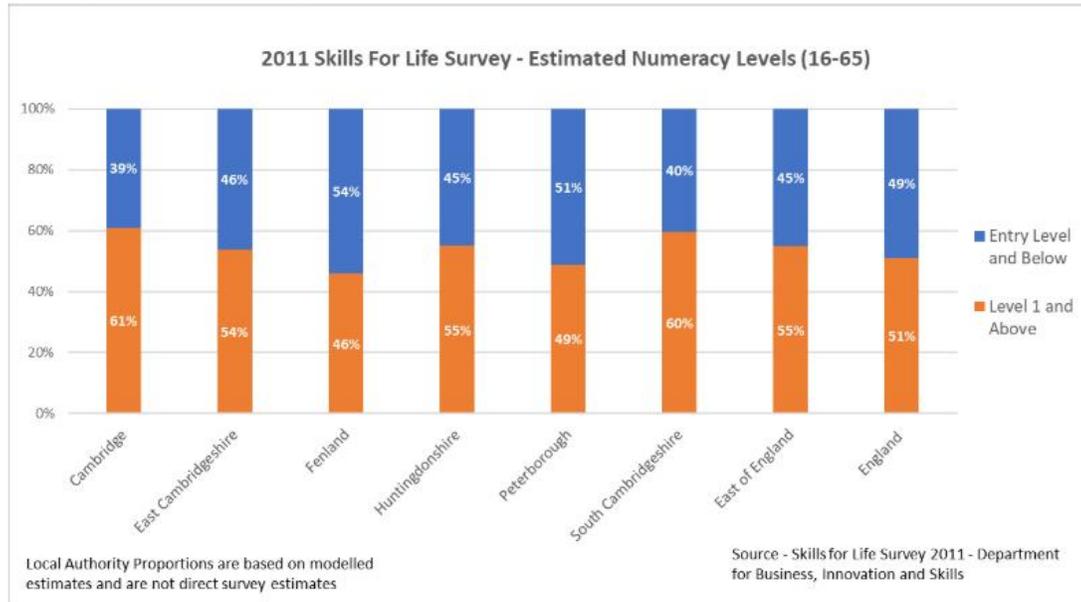
- ❖ When looking at Cambridgeshire and Peterborough overall there is a north/south divide with the wards of lowest estimated numeracy skills and confidence concentrated in the north of the region across Peterborough and Fenland
- ❖ The south of the region has higher estimated numeracy skills and confidence compared to the north but there are pockets of wards in higher deciles in Huntingdon, St Neots, northeast Cambridge City and around Ely, Littleport and Soham in East Cambridgeshire

Adult Education Budget - Basic Skills Numeracy Provision

- ❖ In 2019/20 1,028 learners started a Basic Skills Numeracy qualification. In 2020/21 this figure was 857, a decrease of 17%.
- ❖ This was mostly driven by a decrease in learners with a lower level of prior attainment taking lower level (Entry Level and Level 1) Basic Skill numeracy qualifications
- ❖ In both 2019/20 and 2020/21 the largest proportion of learners taking a Numeracy Basic Skills qualification lived in Peterborough
- ❖ In both 2019/20 and 2020/21 the majority of learners were employed on their first day of learning

2011 Skills for Life Survey

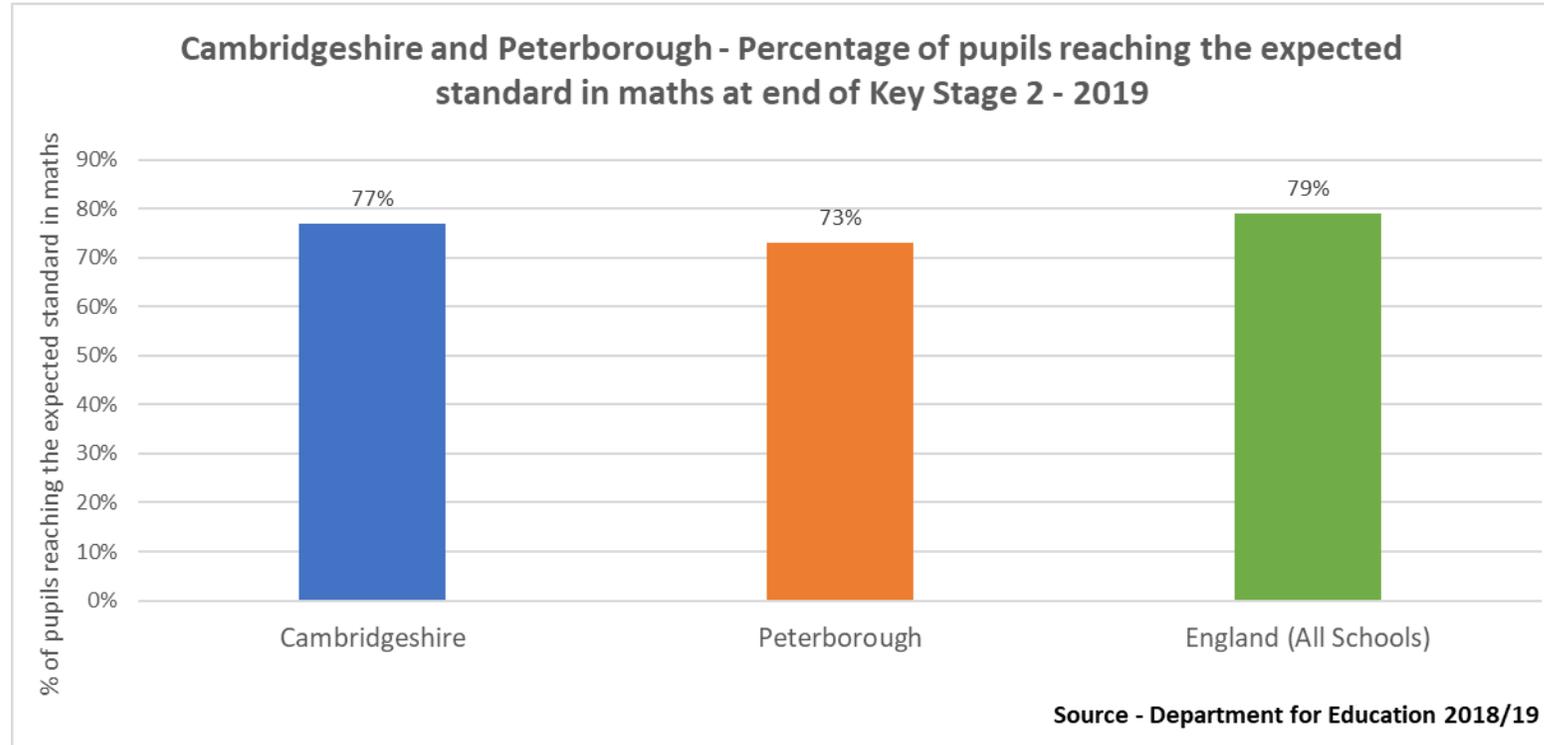
- [Source Link](#)



- ❖ The 2011 Skills for Life Survey was a national survey of adult literacy, numeracy and ICT skills carried out the then Department for Business, Innovation and Skills
- ❖ In England, overall, the proportion of people with Entry Level and Below Numeracy Skills was 49%. In the East of England this is slightly lower at 45%
- ❖ Out of the Cambridgeshire and Peterborough local authorities **Fenland** and **Peterborough** are the only ones where the proportion of residents Entry Level and Below numeracy skills was higher than in the East of England as a whole and nationally. **East Cambridgeshire** also had a higher proportion lower skilled residents when compared to the East of England.
- ❖ Looking just at the estimated numbers **Peterborough** also had the highest estimated number of residents in Cambridgeshire and Peterborough with lower numeracy skill levels

Key Stage 2 - Percentage of Pupils Reaching Expected Numeracy Standard (Local Education Authority)

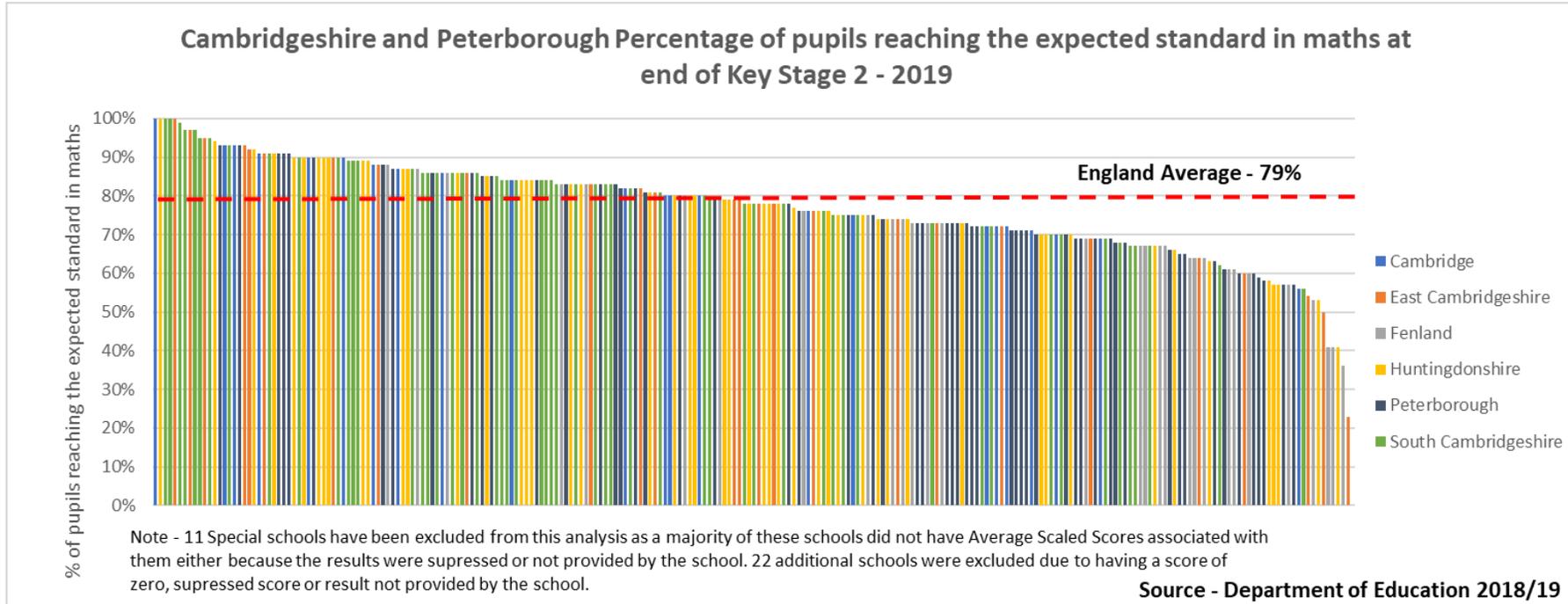
- [Cambridgeshire Source Link](#)
- [Peterborough Source Link](#)



- ❖ The chart above shows the proportion of pupils reaching the expected standard in maths at the end of Key Stage 2 in 2019, the latest data available.
- ❖ Whilst Cambridgeshire has a higher proportion of pupils reaching the expected standard than Peterborough, both local authorities have a lower proportion of pupils reaching the expected standard than England as a whole

Key Stage 2 - Percentage of pupils reaching the expected standard in maths (By School)

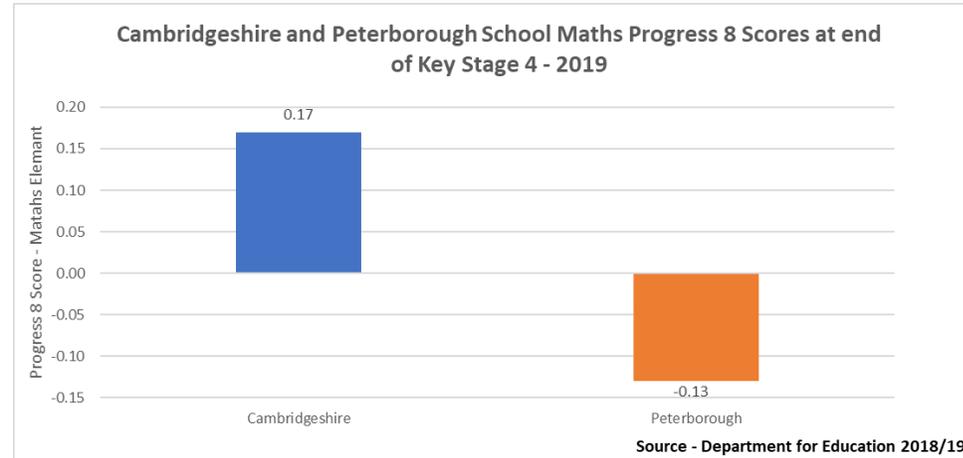
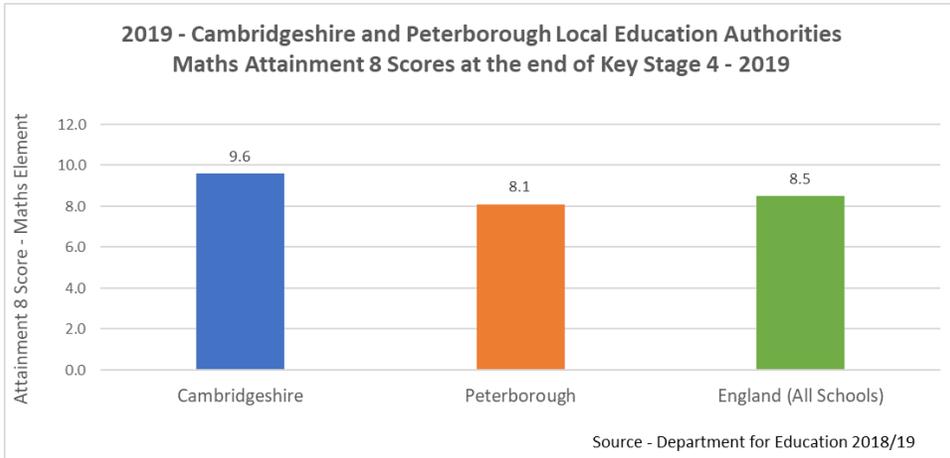
- [Cambridgeshire Source Link](#)
- [Peterborough Source Link](#)



- ❖ The chart above shows the proportion of pupils reaching the expected standard in maths at the end of Key Stage 2 students in 2019, the latest data available on individual school performance. It should be noted that Special schools were not included in this analysis as the majority did not provide a percentage for expected standard for 2019
- ❖ 51% of the schools listed had a lower percentage of pupils reaching the expected standard than the England average of 79%
- ❖ The majority of schools with the proportion of pupils reaching the expected standard above the English average of 79% are situated in Cambridge, South Cambridgeshire and Huntingdonshire
- ❖ In two local authorities more than half of schools had a percentage of pupils reaching the expected standard below the England average: Fenland (77% of schools) and Peterborough (64% of schools)
- ❖ In two local authorities more than half of schools had a percentage of pupils reaching the expected standard above the English average: Cambridge (61%) and South Cambridgeshire (64%)

Key Stage 4 - Maths Attainment 8 Scores (Local Education Authority)

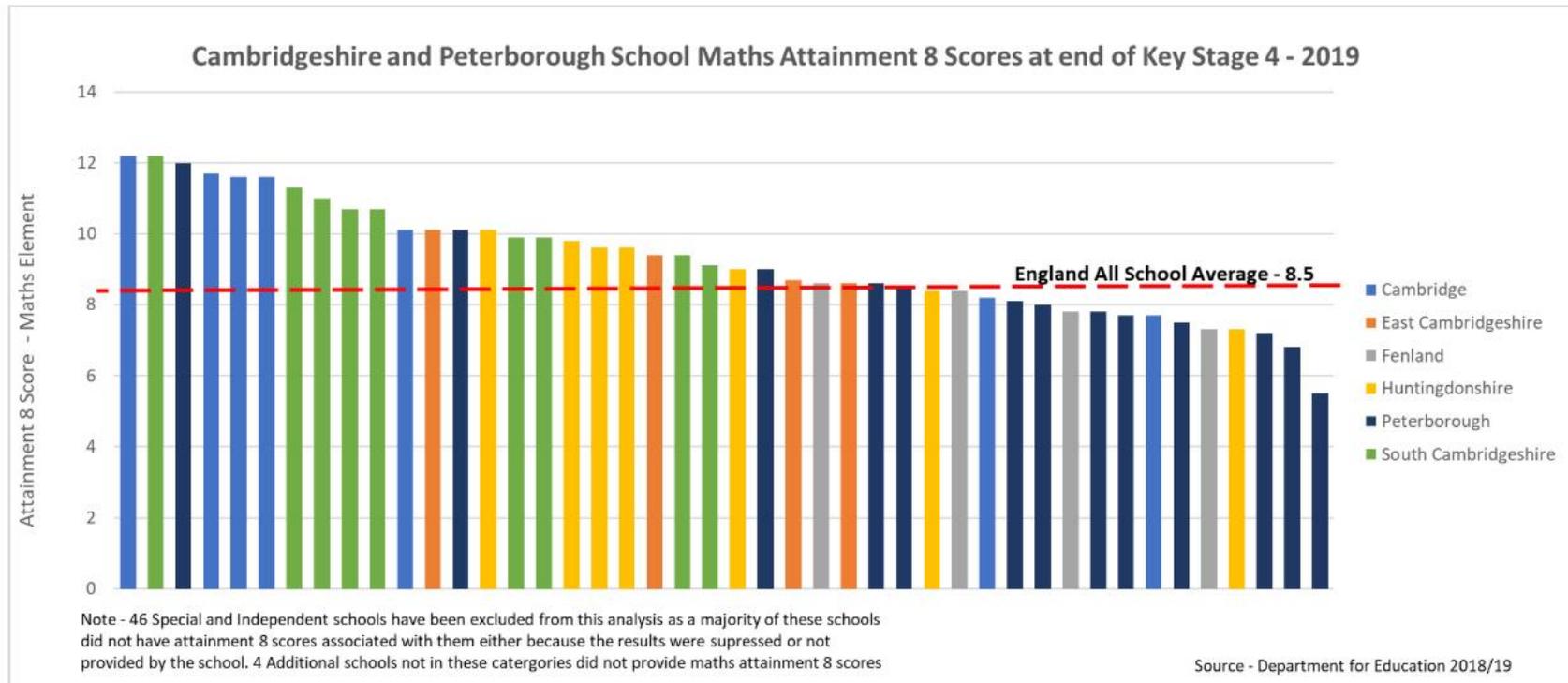
- [Cambridgeshire Source Link](#)
- [Peterborough Source Link](#)



- ❖ The charts above shows the Maths Attainment 8 and Progress 8 scores for Key Stage 4 students in 2019, the latest data available.
- ❖ Attainment 8 is a measure of academic performance in a secondary school. It is calculated by adding together a pupil's highest scores across eight government approved school subjects.
- ❖ Progress 8 is a type of 'value-added' measure that indicates how much pupils at a secondary school have improved over a five year period when compared to a government-calculated expected level of improvement.
- ❖ Whilst Cambridgeshire has a better attainment 8 score than the England (All Schools) average, Peterborough's is slightly lower.
- ❖ Cambridgeshire has a better progress 8 score than Peterborough which has a negative progress 8 score overall

Key Stage 4 - Maths Attainment 8 Scores (By School)

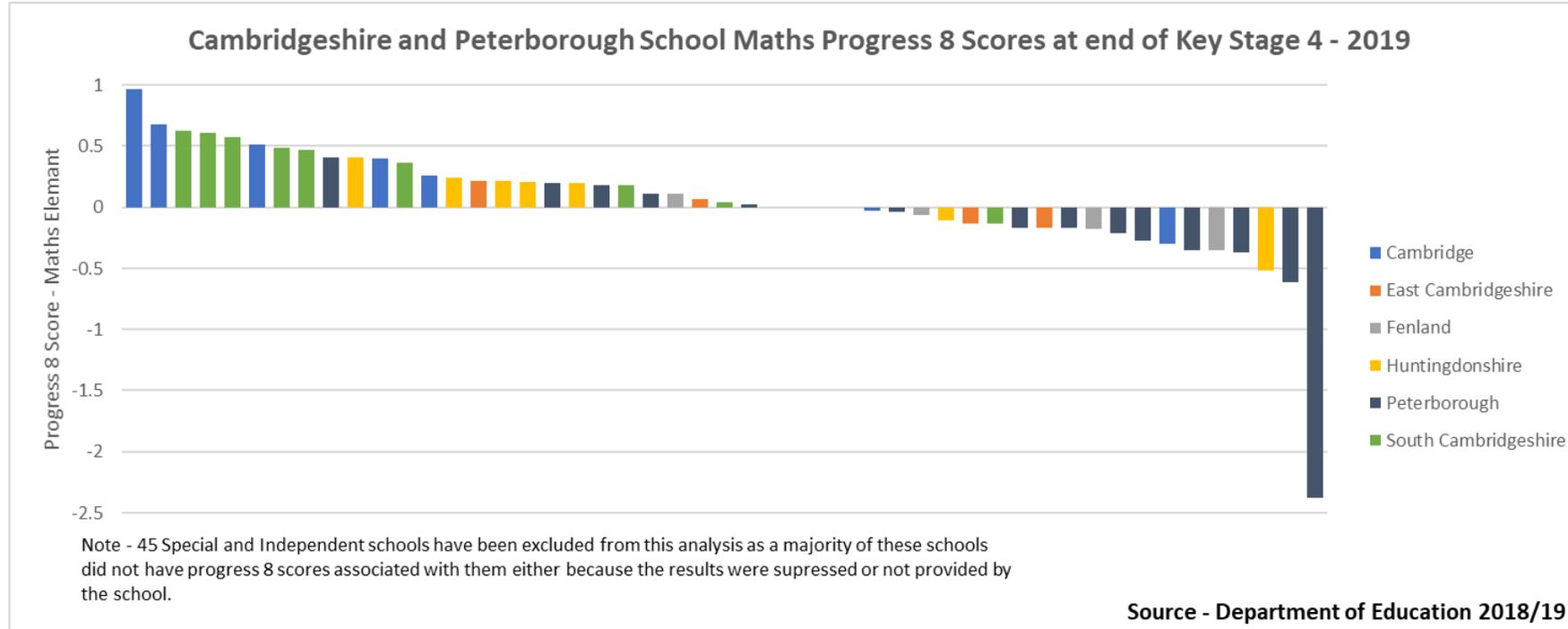
- [Cambridgeshire Source Link](#)
- [Peterborough Source Link](#)



- ❖ The chart above shows the Maths Attainment 8 scores for Key Stage 4 students in 2019, the latest data available on individual school performance. It should be noted that Independent and Special schools were not included in this analysis as the majority did not provide a numeracy attainment 8 score for 2019
- ❖ The only local authorities where all the schools listed were above the England average were South Cambridgeshire and East Cambridgeshire
- ❖ In two local authorities more than half of schools were below the England average: Fenland (75% of schools) and Peterborough (62% of schools)

Key Stage 4 - Maths Progress 8 Scores (By School)

- [Cambridgeshire Source Link](#)
- [Peterborough Source Link](#)



- ❖ The chart above shows the Maths Progress 8 scores for Key Stage 4 students in 2019, the latest data available on individual school performance. It should be noted that Independent and Special schools were not included in this analysis as the majority did not provide a numeracy progress 8 score for 2019
- ❖ The majority of schools with positive progress 8 scores are situated in Cambridge and South Cambridgeshire
- ❖ In two local authorities more than half of schools had a negative maths progress 8 score: Fenland (75% of schools) and Peterborough (60% of schools)
- ❖ 80% of schools across South Cambridgeshire had a positive maths progress 8 score

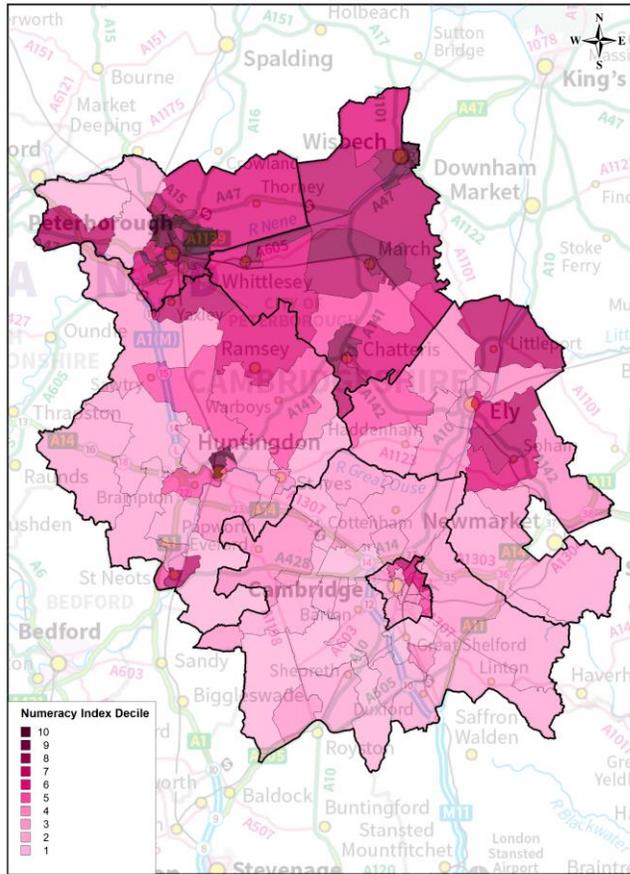
National Numeracy Index

[- Source Link](#)

- ❖ National Numeracy is an independent charity established in 2012 to help raise low levels of numeracy among both adults and children and to promote the importance of everyday maths skills
- ❖ National Numeracy and Experian have collaborated to build the UK Numeracy Index which predicts and ranks areas by numeracy skills and confidence. The index combines data available National Numeracy's own '*National Numeracy Challenge*' education tool and Experian's existing datasets on Numeracy proficiency
- ❖ The following maps present this index by wards across Cambridgeshire and Peterborough as a whole and then by each local authority
- ❖ Deciles were calculated by using the provided Numeracy Index percentiles. For example a ward with a percentile of 1-10 would be given a decile of 1, a ward with a percentile of 11-20 would be given a decile of 2 and so on.
- ❖ Darker areas in the maps represent wards with higher deciles and therefore lower estimated levels of numeracy skills and confidence. Lighter areas in the maps represent wards with lower deciles and therefore higher levels of estimated skills and confidence

Cambridgeshire and Peterborough

Cambridgeshire and Peterborough National Numeracy Index by Ward

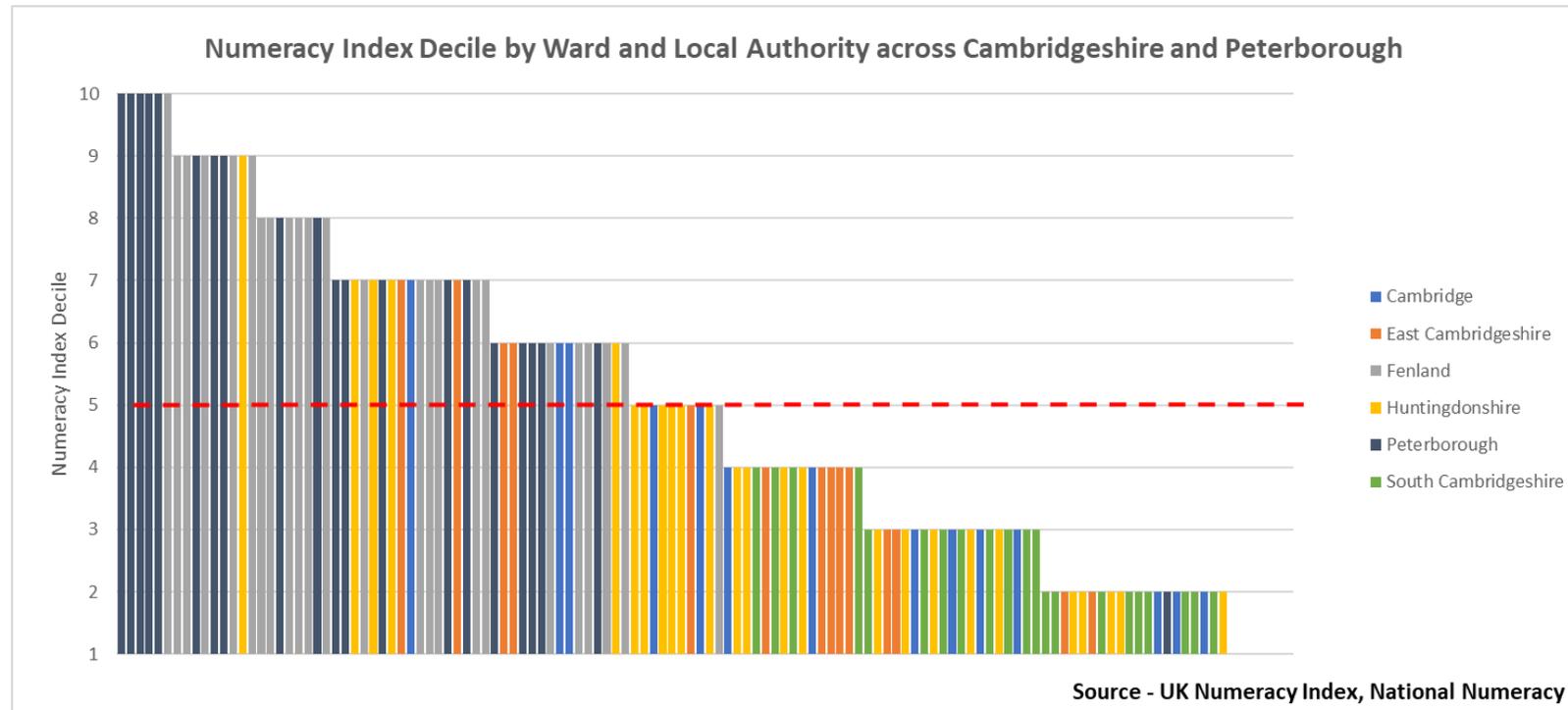


Source - UK Numeracy Index, National Numeracy © Crown copyright and database rights 2022 OS 100023205

Top 10 wards with lowest estimated numeracy skills and confidence across Cambridgeshire and Peterborough		
Local Authority	Ward	Numeracy Index Decile
Fenland	Waterlees Village	10
Peterborough	North	10
Peterborough	Bretton	10
Peterborough	Dogsthorpe	10
Peterborough	Paston & Walton	10
Peterborough	East	10
Peterborough	Orton Longueville	9
Fenland	Clarkson	9
Fenland	Octavia Hill	9
Peterborough	Central	9

- ❖ When looking at Cambridgeshire and Peterborough overall there is a north/south divide with the wards of lowest estimated numeracy skills and confidence concentrated in the north of the region across Peterborough and Fenland
- ❖ All 10 wards with the lowest estimated numeracy skills and confidence in Cambridgeshire and Peterborough are in either Fenland or Peterborough (7 in Peterborough, 3 in Fenland)
- ❖ The south of the region has higher estimated numeracy skills and confidence compared to the north but there are pockets of wards in higher deciles in Huntingdon, St Neots, northeast Cambridge City and around Ely, Littleport and Soham in East Cambridgeshire

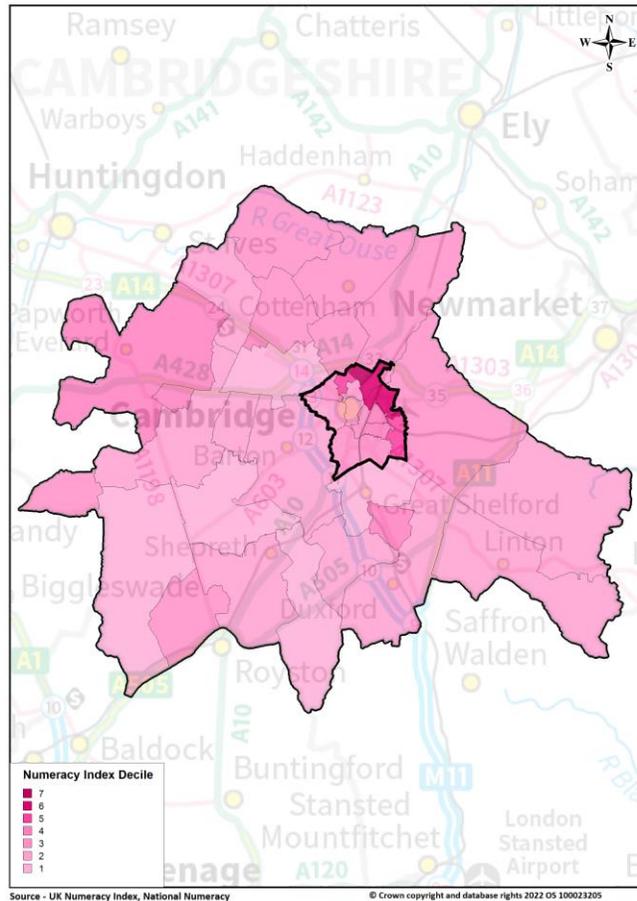
National Numeracy Index - Cambridgeshire and Peterborough



- ❖ The above bar chart shows wards by decile across Cambridgeshire and Peterborough by the local authority each ward is in. The red line shows the decile of 5 which is the average decile of all wards across Cambridgeshire and Peterborough
- ❖ 78% of wards with a decile higher than 5, and therefore lower estimated numeracy skills and confidence are within Peterborough and Fenland
- ❖ For both Peterborough and Fenland, only one ward are in a decile of 5 or lower
- ❖ Over half (54%) of wards in South Cambridgeshire have a decile of 1 or 2 with no wards with a decile of greater than 4

Greater Cambridge

Greater Cambridge National Numeracy Index by Ward

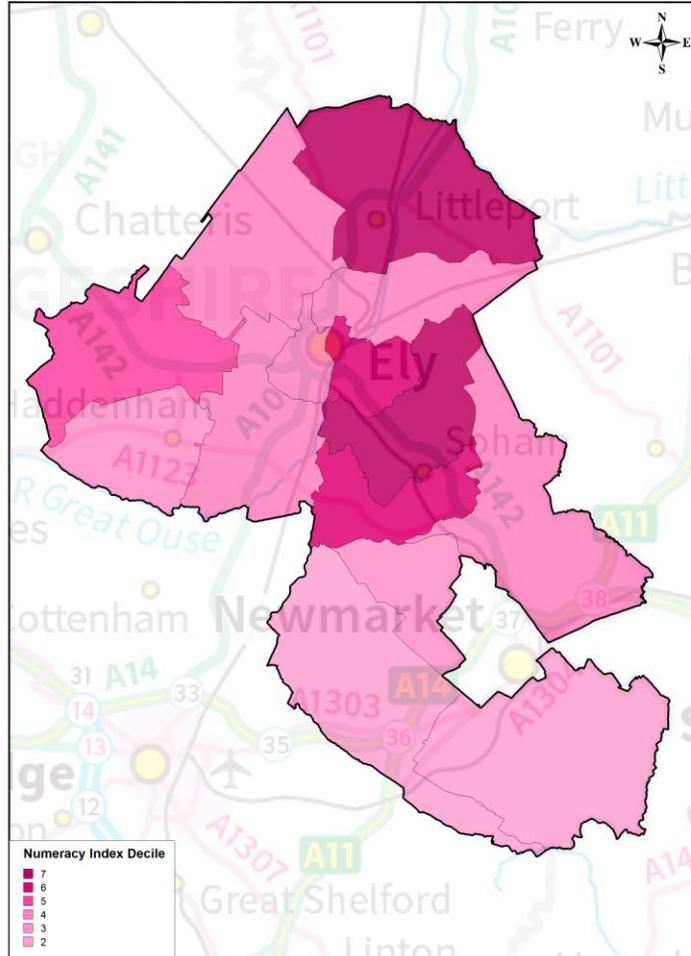


Top 10 wards with lowest estimated numeracy skills and confidence across Greater Cambridge		
Local Authority	Ward	Numeracy Index Decile
Cambridge	King's Hedges	7
Cambridge	Abbey	6
Cambridge	East Chesterton	6
Cambridge	Arbury	5
Cambridge	Cherry Hinton	5
South Cambridgeshire	Cambourne	4
South Cambridgeshire	Bar Hill	4
South Cambridgeshire	Sawston	4
South Cambridgeshire	Caxton & Papworth	4
Cambridge	Coleridge	4

- ❖ When looking at Greater Cambridge South Cambridgeshire stands out as a region of higher estimated numeracy skills and confidence with no ward with a decile greater than 4 across the local authority
- ❖ The majority of wards in Cambridge City have higher estimated numeracy skills and confidence but there are wards of lower estimated numeracy skills and confidence concentrated in the north east of the city such as King's Hedges with a decile of 7

East Cambridgeshire

East Cambridgeshire National Numeracy Index by Ward



Source - UK Numeracy Index, National Numeracy

© Crown copyright and database rights 2022 OS 100023205

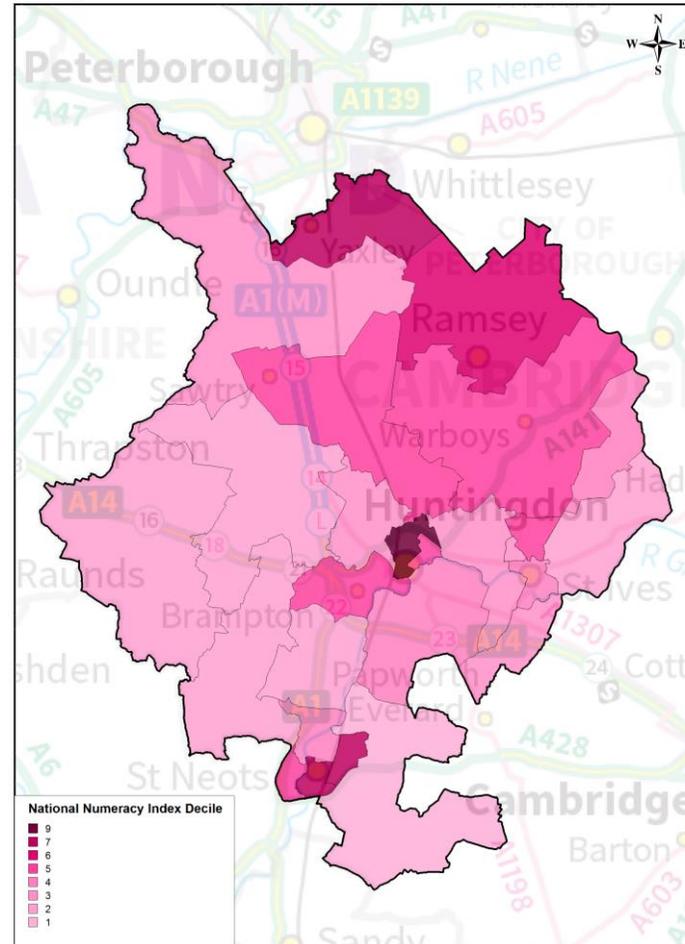
Top 10 wards with lowest estimated numeracy skills and confidence across East Cambridgeshire

Local Authority	Ward	Numeracy Index Decile
East Cambridgeshire	Littleport	7
East Cambridgeshire	Soham North	7
East Cambridgeshire	Ely East	6
East Cambridgeshire	Soham South	6
East Cambridgeshire	Sutton	5
East Cambridgeshire	Ely North	4
East Cambridgeshire	Ely West	4
East Cambridgeshire	Fordham & Isleham	4
East Cambridgeshire	Stretham	4
East Cambridgeshire	Downham Villages	4

- ❖ When looking at East Cambridgeshire wards in and around Littleport and Ely have the lowest estimated numeracy skills and confidence such as Littleport and Soham North, both with a decile of 7
- ❖ Rural areas in East Cambridgeshire have higher estimated numeracy skills and confidence with multiple wards with a decile of 2 and 3

Huntingdonshire

Huntingdonshire National Numeracy Index by Ward



Source - UK Numeracy Index, National Numeracy

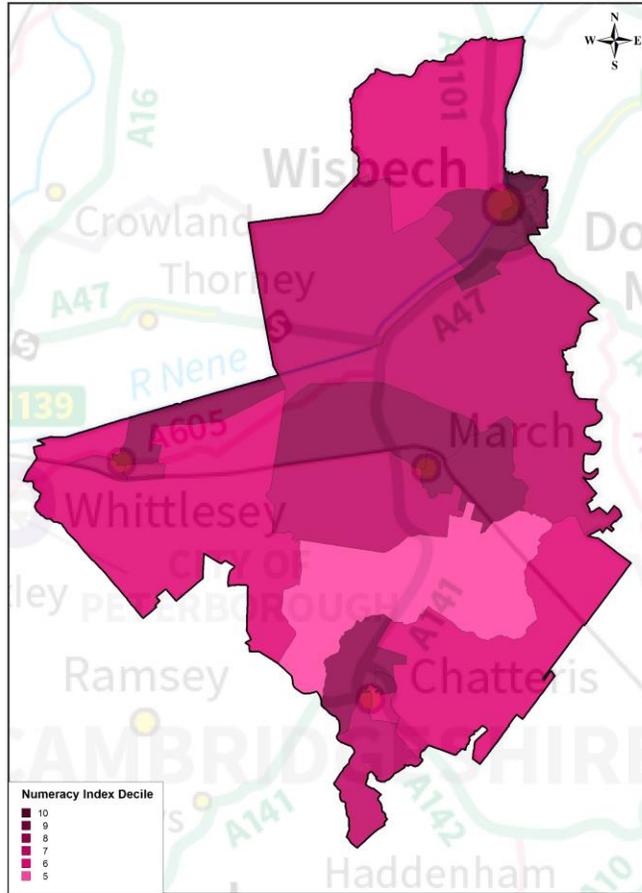
© Crown copyright and database rights 2022 OS 100023205

Top 10 wards with lowest estimated numeracy skills and confidence across Huntingdonshire		
Local Authority	Ward	Numeracy Index Decile
Huntingdonshire	Huntingdon North	9
Huntingdonshire	St Neats East	7
Huntingdonshire	St Neats Eynesbury	7
Huntingdonshire	Yaxley	7
Huntingdonshire	Ramsey	6
Huntingdonshire	St Ives East	5
Huntingdonshire	Huntingdon East	5
Huntingdonshire	St Neats Eatons	5
Huntingdonshire	Brampton	5
Huntingdonshire	Sawtry	5

- ❖ When looking at Huntingdonshire wards of lower estimated numeracy skills and confidence are located in the north west of the region with wards of the lowest estimated numeracy skills and confidence located in and around Huntingdon such as Huntingdon North with a decile of 9
- ❖ The West and South of the region generally has higher estimated numeracy skills and confidence but St Neats stands out as an area with lower estimated numeracy skills and confidence with St Neats East and St Neats Eynesbury having a decile of 7

Fenland

Fenland National Numeracy Index by Ward

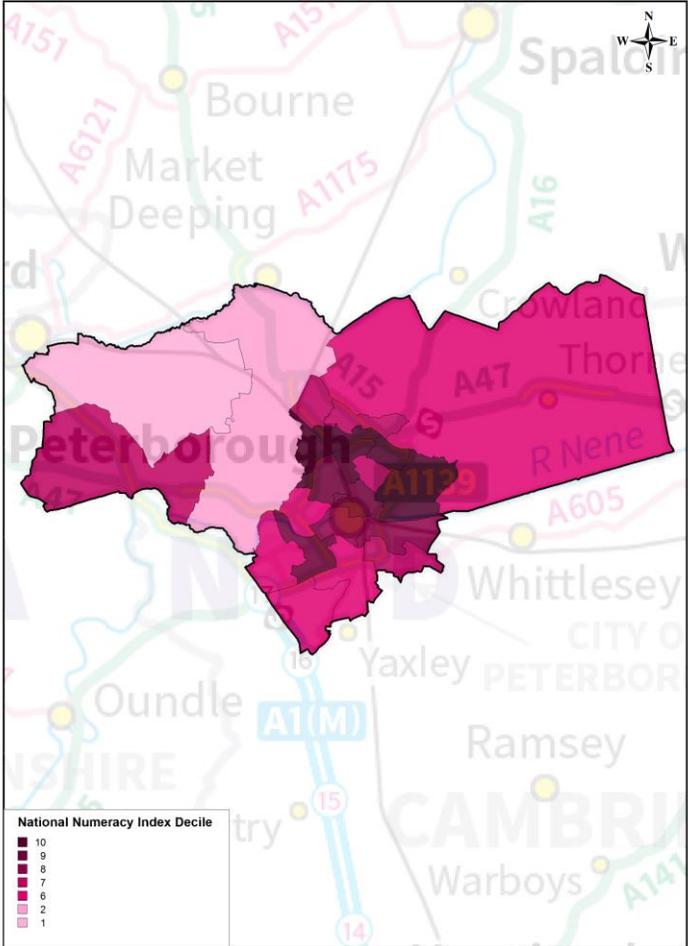


Top 10 wards with lowest estimated numeracy skills and across Fenland		
Local Authority	Ward	Numeracy Index Decile
Fenland	Waterlees Village	10
Fenland	Clarkson	9
Fenland	Octavia Hill	9
Fenland	Medworth	9
Fenland	Staithe	9
Fenland	Kirkgate	9
Fenland	March East	8
Fenland	Slade Lode	8
Fenland	Birch	8
Fenland	March North	8

- ❖ When looking at Fenland, the majority of wards have lower estimated numeracy skills and confidence with no ward with a decile of less than 5 in this local authority
- ❖ Wards with the lowest estimated numeracy skills and confidence are located in and around urban areas such as Waterlees Village in Wisbech with a decile of 10

Peterborough

Peterborough National Numeracy Index by Ward



Source - UK Numeracy Index, National Numeracy

© Crown copyright and database rights 2022 OS 100023205

Top 10 wards with lowest estimated numeracy skills and confidence across Peterborough

Local Authority Ward	Numeracy Index Decile
Peterborough North	10
Peterborough Bretton	10
Peterborough Dogsthorpe	10
Peterborough Paston & Walton	10
Peterborough East	10
Peterborough Orton Longueville	9
Peterborough Central	9
Peterborough Ravensthorpe	9
Peterborough Fletton & Stanground	8
Peterborough Fletton & Woodston	8

- ❖ When looking at Peterborough the south and east of the local authority stand out as having the lowest estimated numeracy skills and confidence. Wards with the lowest estimated numeracy skills and confidence are located in and around central Peterborough with five wards having a decile of 10. This makes Peterborough the only local authority in the CPCA region with more than one ward with a decile of 10
- ❖ The west of the region has much higher estimated numeracy skills and confidence compared to the east with wards here having a decile of 1 and 2

Devolved Adult Education Budget - Numeracy

Basic skills

- ❖ The following slides look at numeracy provision via Cambridgeshire and Peterborough's Devolved Adult Education Budget. The data is taken from Cambridgeshire and Peterborough's Individualised Learner Records for 2019/20 and 2020/21
- ❖ Within the Adult Education Budget, Numeracy basic skills are adult skills numeracy qualifications or learning up to an NVQ Level 2
- ❖ They can include:
 - ❖ Functional skills qualifications
 - ❖ GCSEs
 - ❖ Non-Regulated Adult Skills Funded Provision
- ❖ Under the current funding rules (both devolved and nationally) a learner who has not previously attained a GCSE grade A*-C/Grade 4 or a higher can be fully funded to take these qualifications.

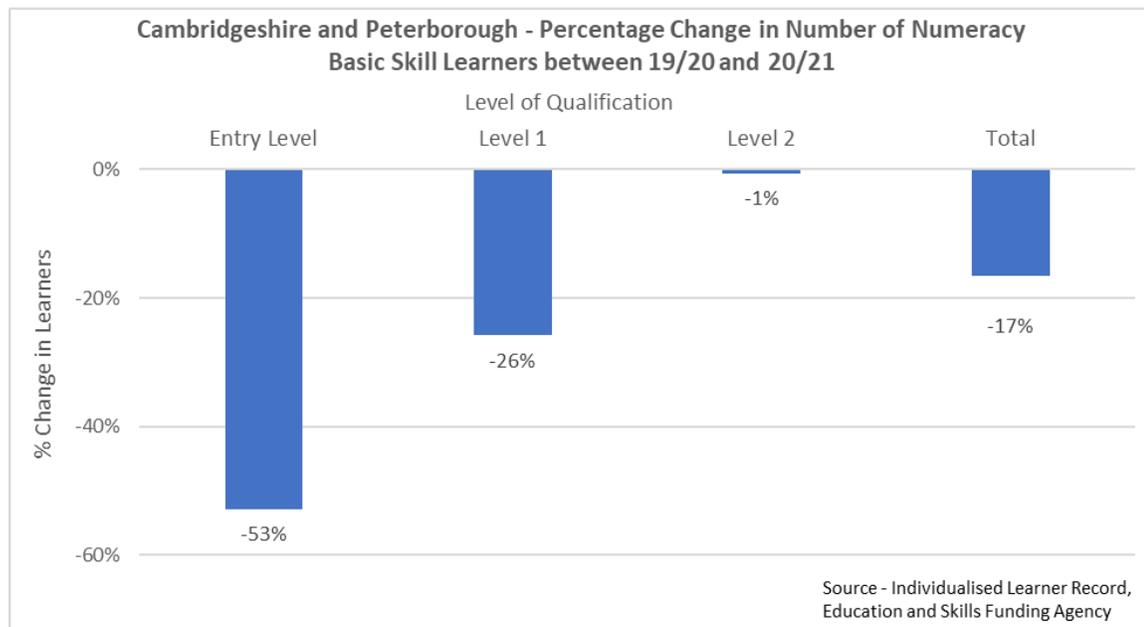
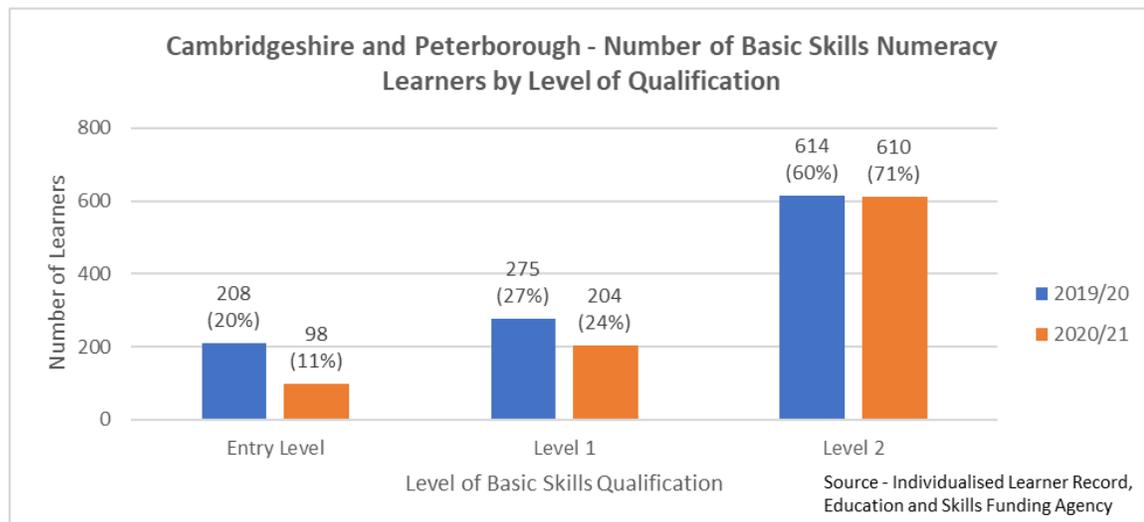
Numeracy Basic Skills - Learner Residential Location

Local Authority of Learner Residence	2019/20		2020/21		% Change
	Learners	% of Total	Learners	% of Total	
Cambridge	156	15%	118	14%	-24%
East Cambridgeshire	84	8%	64	7%	-24%
Fenland	120	12%	105	12%	-13%
Huntingdonshire	141	14%	109	13%	-23%
Peterborough	400	39%	355	41%	-11%
South Cambridgeshire	106	10%	106	12%	0%
Unknown	23	2%	2	0%	-91%
Total	1,028		857		-17%

Source – Individualised Learner Record, Education and Skills Funding Agency

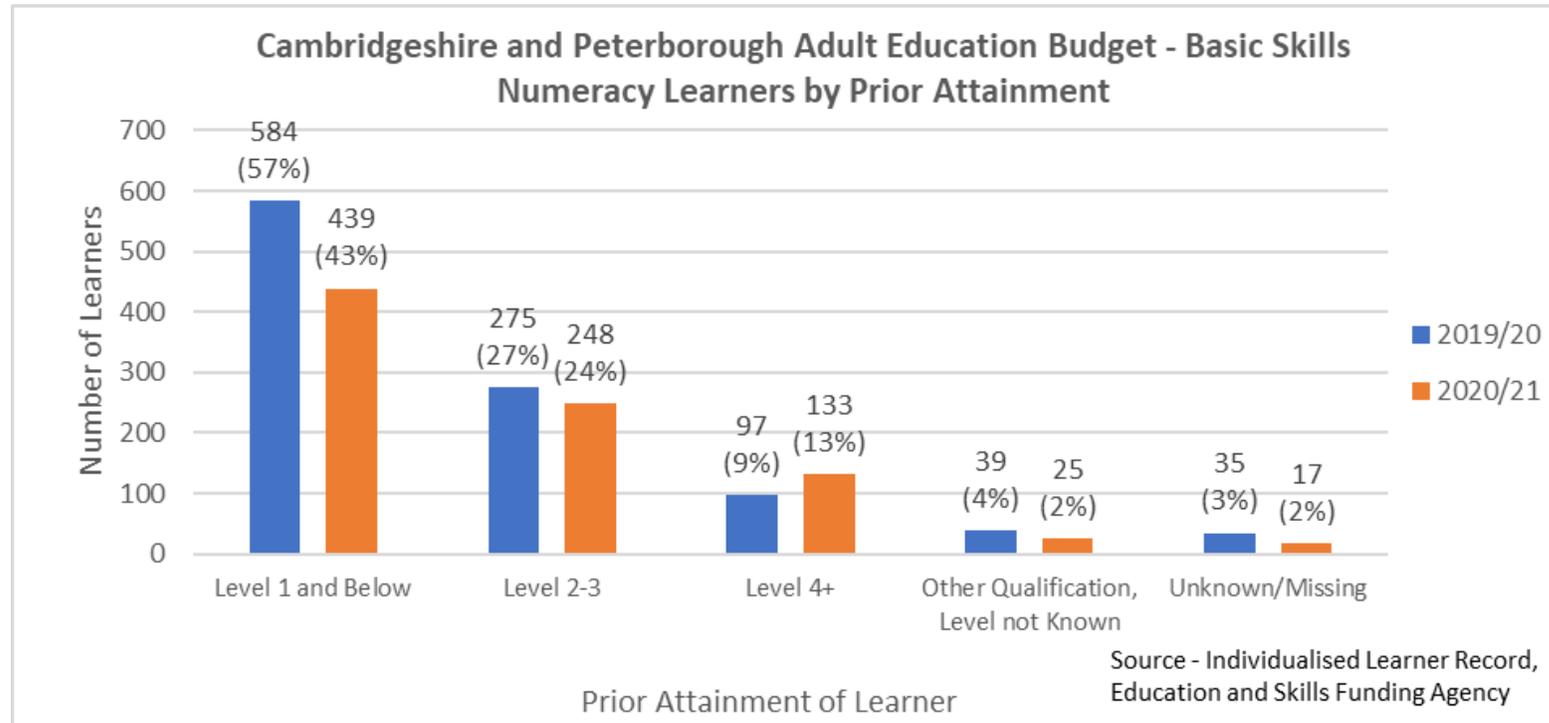
- ❖ In both 2019/20 and 2020/21 the largest proportion of learners taking a numeracy basic skills qualification across the CPCA area lived in **Peterborough**
- ❖ Between 2019/20 and 2020/21 there was a 17% decrease in the number of Numeracy Basic Skills learners
- ❖ The highest proportion decreases were in **Cambridge (-24%), East Cambridgeshire (-24%) and Huntingdonshire (-23%)**

Numeracy Basic Skills - Qualification Level



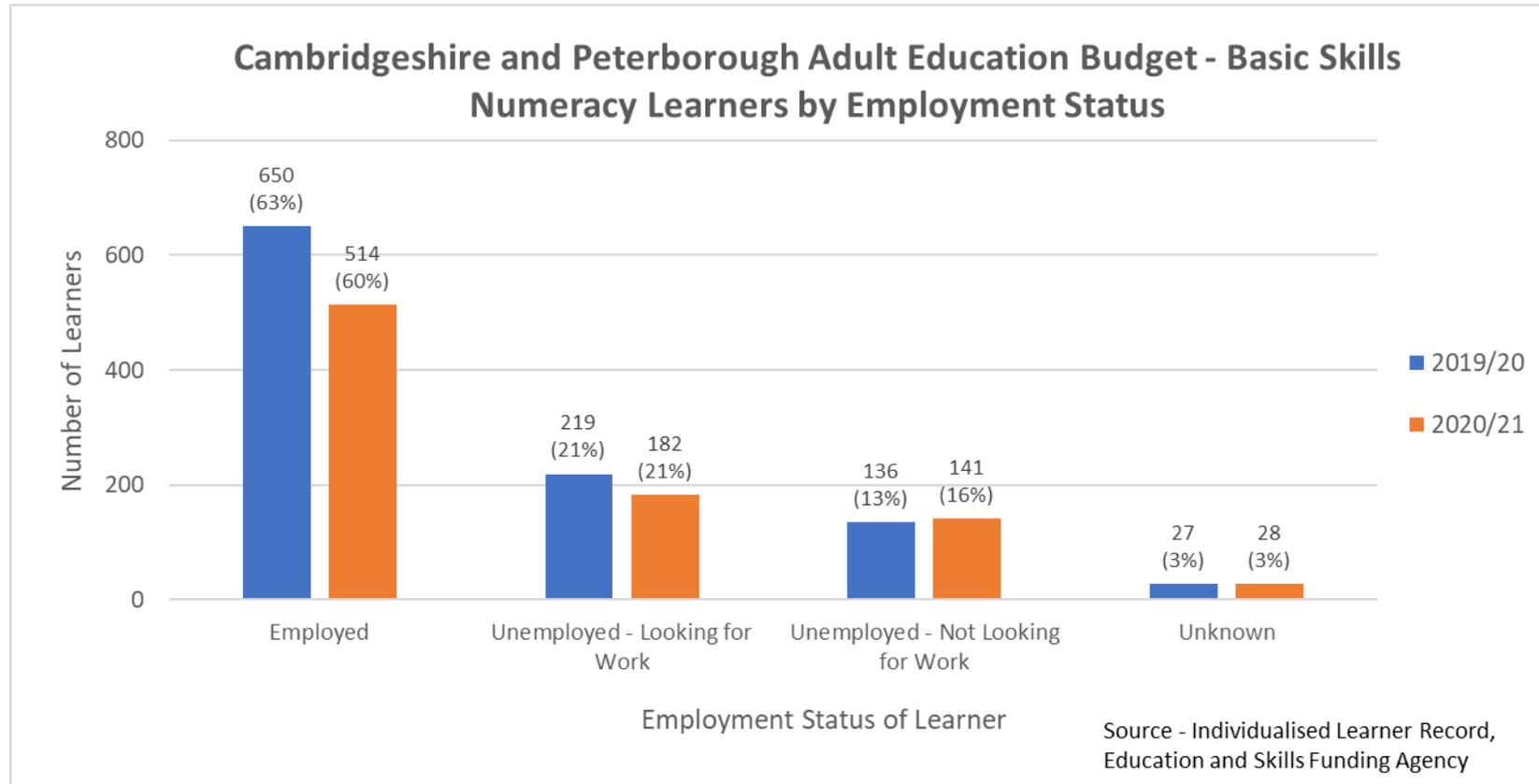
- ❖ In both 2019/20 and 2020/21 the majority of learners studying basic skills undertook a Level 2 qualification
- ❖ Between 2019/20 and 2020/21 the decrease in Numeracy Basic Skills learning was driven by a decrease in lower level qualifications, a 53% decrease in learners taking an entry level qualification and a 26% decrease in those taking a level 1 qualification

Numeracy Basic Skills - Prior Attainment



- ❖ In both 2019/20 and 2020/21 the largest proportion of learners had a prior attainment level of 1 and below
- ❖ Between 2019/20 and 2020/21 there was a drop in the number of learners in every prior attainment group apart from Level 4+ which saw a 37% increase. The largest single drop was for those learners with a prior attainment level of 1 or Below (-25%)

Numeracy Basic Skills - Employment Status



- ❖ In both 2019/20 and 2020/21 the majority of learners were employed
- ❖ Between 2019/20 and 2020/21 there were drops in the numbers of learners who were employed (-21%) or unemployed and looking for work (-17%). In the same period, there was 4% increase in the number of learners who were unemployed and not looking for work.

Community Learning

Cambridgeshire and Peterborough Adult Education Budget - Numeracy - Non-Regulated Community Learning Learners				
Equivalent Level	2019/20		2020/21	
	Learners	% of Total	Learners	% of Total
Entry Level	41	66%	16	17%
Level 1	!	!	21	23%
Level 2	19	31%	63	68%
Total	62		92	

Source – Individualised Learner Record, Education and Skills Funding Agency
 *! – These values have been suppressed owing to the number of learners being less than 10

- ❖ Within the Adult Education Budget, Community Learning funding can be used to deliver Non-Regulated Basic Skills provision, including Numeracy.
- ❖ Between 2019/20 and 2020/21 there was a 48% increase in the number of learners taking part in numeracy learning. This was driven by increases in both level 1 and level 2 enrolments.
- ❖ In the same period, there was a 61% decrease in entry level learning.