



CELEBRATING 10 YEARS OF TRUSTED CATHOLIC EDUCATION



 Building **Spatial** Intelligence

Surviving the £1bn Shortfall: Smart Solutions for School Estates Amid Falling Rolls

Presented by: Paul Stewart,
Trust Estates and Facilities Manager for Plymouth CAST



Introduction

The £1bn Shortfall – What It Means for Trusts

Context: Schools in England face a £1 bn funding shortfall due to nearly 1 million fewer pupils by 2032.

Impact: Underutilised spaces, financial strain, and the urgent need for estate optimisation.

Objective: How smart, data-driven solutions can help trusts adapt, optimise, and future-proof their estates.

SCHOOLS WEEK

Wednesday, 09 Apr 2025

[ABOUT](#) [ADVERTISING](#) [SUBSCRIBER AREA](#)

Podcast

[News](#) [Jobs](#) [Opinion](#) [Features](#) [Reviews](#) [Sector voice](#) [Other](#) 

SEARCH



Subscribe

[Home](#) > [All news](#)

News

Schools face £1bn funding hit over falling rolls, report suggests

Think tank warns of 'imminent challenges to financial health of schools' amid falling rolls crisis



Jack Dyson

11 Apr 2024, 0:01

[More from this author](#)



 See discussion

What Principles Do I Need to Prepare for Falling Rolls?

"The right data isn't just useful – it's essential for making informed decisions on how to adapt and optimise school estates."

Minimum Viable Datasets for Strategic Planning:



Space utilisation metrics

Tracking how spaces are used helps identify underutilised areas and opportunities for optimisation.



Room occupancy rates vs. timetable data

Comparing scheduled vs. actual room use highlights inefficiencies and informs smarter space planning.



Energy and operational costs

Understanding energy use and running costs supports cost-saving and sustainability efforts.



Future demographic trends

Forecasting pupil numbers ensures estates are right-sized to meet future demand.

1. How Do I Prepare For Falling Rolls?

Start by Knowing Your Estate:

"To be an effective estates manager, I need to know what I've got and how it's being used."

**Accurate and up-to-date
floor plans.**

**Comprehensive asset
registers.**

**Capacity Analysis &
accessibility reports.**

**Financial and operational
datasets.**

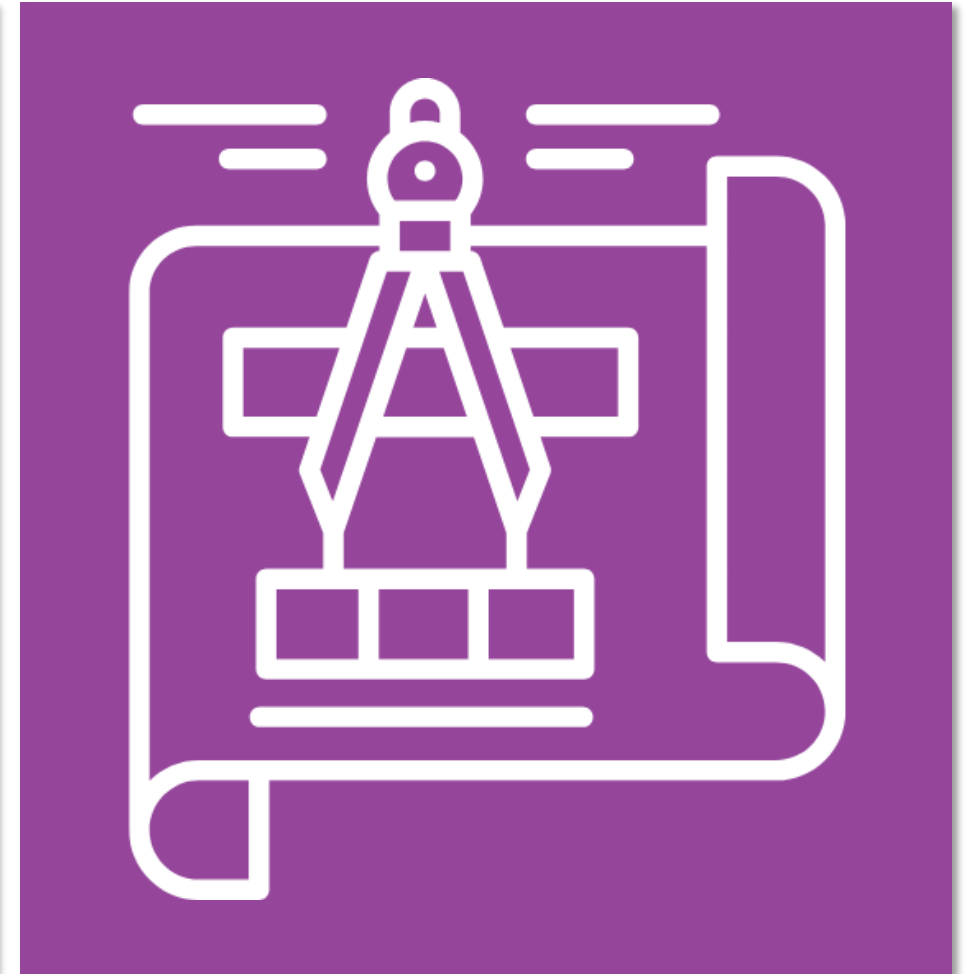
Knowing My Estate:

- **Intelligent floor plans.**

Intelligent Floor Plans: The Foundation of Estate Insight

Clear, precise, structured, and up-to-date floor plans provide an essential baseline for understanding how your estate is used. They enable:

- **BB103 benchmarking** – understand how your school compares to the Department for Education design guidelines
- **Accurate space allocation** – knowing exactly what each room is used for and how it supports the curriculum
- **Effective estate planning** – identifying underutilised and surplus areas, and informing future adjustments
- **Data consistency** – creating a shared, reliable reference across teams and systems



Knowing My Estate:

- **Verified and located asset registers.**

Verified and Located Asset Registers: Clarity Across the Estate

A detailed asset register ensures every building, room, and facility is accounted for, enabling us to:

- **Prioritise maintenance** – plan repairs and upgrades based on accurate records
- **Make informed financial decisions** – align budgets with actual estate needs and usage
- **Support strategic planning** – build a clear picture of estate-wide capacity and condition



Knowing My Estate:

- **School Capacity Planning & Accessibility**

School Capacity & Accessibility Reports: Ensuring Compliance and Equity

Comprehensive school capacity and accessibility reporting enabled us to:

- **Understand our schools as operational units** - through curriculum modelling and timetable analysis
- **Evaluate accessibility** – ensure all facilities meet the needs of all users, including those with disabilities
- **Support compliance** – align estate planning with statutory guidelines and funding requirements
- **Guide strategic decisions** – make informed choices about admissions, space planning, and future investment



Knowing My Estate:

- **Financial & Operational Datasets**

Financial and Operational Datasets: Driving Informed, Sustainable Decisions

Robust financial and operational data allows us to:

- **Track real running costs** – understand expenditure across energy, maintenance, and staffing
- **Identify inefficiencies** – pinpoint areas where costs can be reduced without impacting outcomes
- **Support sustainability goals** – align spending with energy efficiency and Net Zero targets
- **Inform strategic investment** – prioritise spend based on data, not assumptions



2. How Do I Prepare For Falling Rolls?

Start by Improving the Existing Operational Efficiency:

Centralised datasets for trust-wide strategic decision-making

A unified data system ensures consistency, enabling trusts to make informed, estate-wide strategic decisions.



Technical reports and assessments

These reports clarify usable teaching space, identify access limitations, and inform strategic decisions on right-sizing and inclusive provision.



Digital dashboards for data visualisation and interpretation

Interactive dashboards turn complex estate data into actionable insights, helping trusts monitor utilisation and plan strategically.



Improving Operational Efficiency:

"Small inefficiencies add up—granular data on space, energy, and operations is key to maximising efficiency and reducing costs."

The reality of underused space.

Up to **60%**

of a school's energy is
consumed when the school is
closed.

Up to **90%**

of a school building is unused
at any one time during a
timetabled day.

Improving Operational Efficiency: Operational Costs

Operational Costs: Visibility for Smarter Spending

A clear view of operational costs—including energy, maintenance, and staffing—allows us to:

- **Identify inefficiencies** – uncover wasteful energy use or overspending
- **Implement cost-saving strategies** – reallocate resources where they deliver the most value
- **Support sustainability goals** – align financial planning with environmental targets
- **Monitor trends over time** – track improvements and make informed adjustments



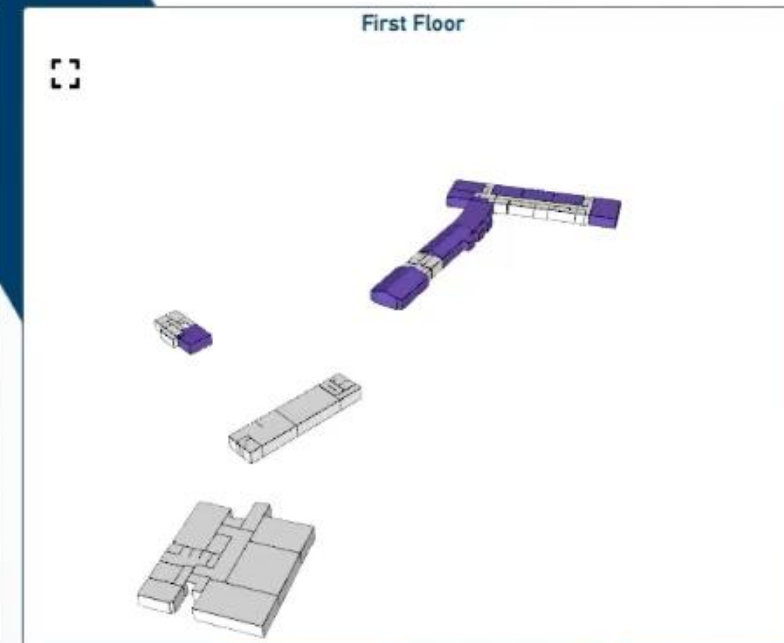
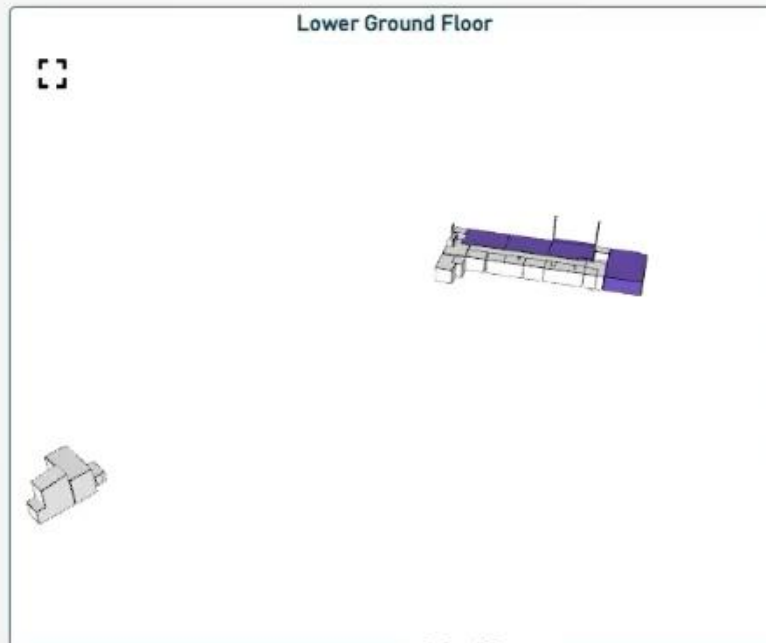
Improving Operational Efficiency: Space Utilisation

Space Utilisation: Data-Driven Optimisation

Using occupancy data, timetable analysis, and capacity forecasting enables Trusts to:

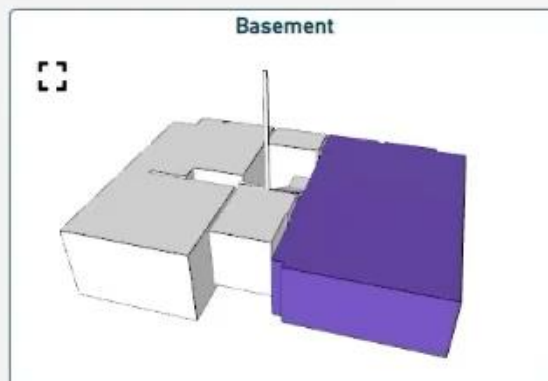
- **Optimise room usage** – match space supply with curriculum demand in real time
- **Avoid inefficiencies** – reduce empty or underused spaces during the school day
- **Plan for changing pupil numbers** – respond proactively to rising or falling rolls
- **Inform strategic decisions** – support evidence-based adjustments across the estate





Planned Admission Number

80



DfE Number: 012/3456
Local Authority: Educationshire
Age Range: 11 to 16
Utilisation Factor: 0.75
Normal Year of Admission: 7
Number of Years up to Age 16: 5
Minimum Workplaces Available: 719
Maximum Workplaces Available: 799
Capacity Based on Planned Admissions: 400
Net Capacity: 719
Indicated Admission Number: 143

Space Ref	Description	Total Area	Net Area	Non Net Area	Basic Workplaces	Resource Workplaces
PS-106-16-GF-185	Store	13.73	13.73		0	7
PS-106-17-GF-186	Store	13.73	13.73		0	7
PS-106-18-GF-187	Store	13.73	13.73		0	7
PS-106-19-GF-379	Plant Room	22.61		22.61	0	0
PS-106-ANC1-GF-107	Group Room	7.81	7.81		0	3
PS-106-ANC1-GF-191	Store	7.48	7.48		0	2
PS-106-ANC1-GF-192	SEN Resource Base	20.77	20.77		0	11
PS-106-ANC1-GF-193	Office	50.68	50.68		30	1
PS-106-ANC1-GF-194	Circulation	17.32		17.32	0	0
PS-106-ANC1-GF-195	Office	11.10	11.10		0	5
PS-106-ANC1-GF-196	Fitness Suite	65.64	65.64		0	14
PS-106-ANC1-GF-197	Circulation	10.47		10.47	0	0
PS-106-ANC1-GF-198	Staffroom	3.29	3.29		0	1
PS-106-ANC1-GF-199	Office	11.63	11.63		0	5
PS-106-ANC1-GF-204	Store	56.39	56.39		30	5
PS-106-EFAA-1F-310	Store	1.74	1.74		0	1
PS-106-EFAA-1F-337	Classroom	70.06	70.06		30	14



Your School

Analyse Current Areas per BB103 Category, based on Pupil Numbers



Planned Admission Number

170

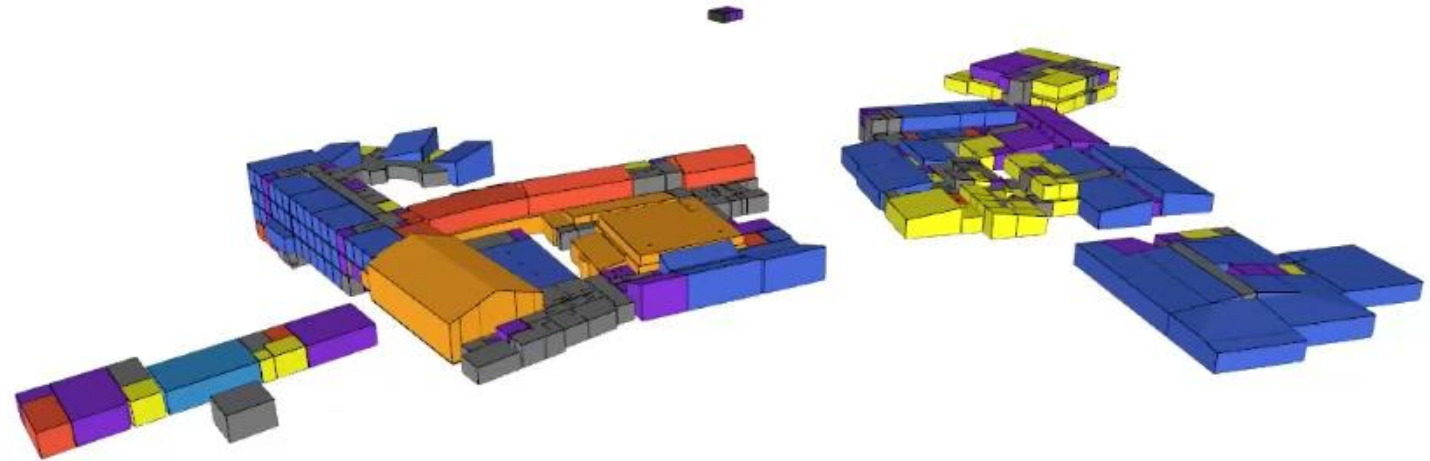
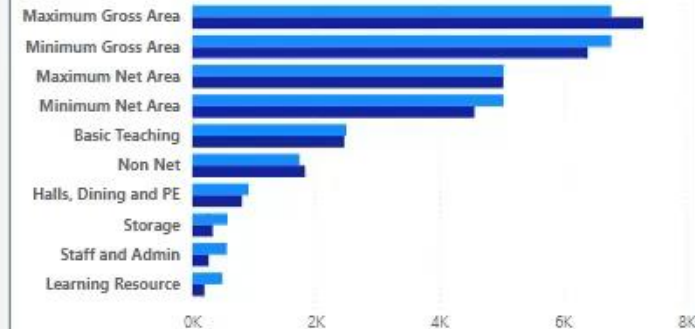
Colour BB103 Category

- Basic Teaching
- Halls, Dining and PE
- Learning Resource
- Non Net
- Staff and Admin
- Storage

Nursery Pupils: 0
Total Pupils Aged 4 to 11: 0
Pupils Aged 11 to 16: 371
Sixth Form Pupils: 0

Area (Current) and Area (Required) by BB103 Category

Area (Current) Area (Required)



BB103 Category Area (Current) (Required) (Difference)

Maximum Gross Area	6788	7305	-517
Minimum Gross Area	6788	6405	383
Maximum Net Area	5046	5040	6
Minimum Net Area	5046	4575	471

BB103 Category Area (Current) (Required) (Difference)

Basic Teaching	2499	2465	34
Non Net	1742	1830	-88
Halls, Dining and PE	917	810	107
Storage	575	338	237
Staff and Admin	565	270	295
Learning Resource	493	203	290
Total	6791	5916	875

Space Ref	Building	Floor	Index	Local Room Name	Description	Area	Volume	Ceiling Height	Perimeter	BB103 Category	Subject Group	Toilets	In Use	BB103 Workplace
PS-106-EFAB-GF-100	10	GF	100	Headteacher's Office	Headteacher's Office	23.26	1,946.73	83.69	19.62	Staff and Admin			Yes	
PS-106-EFAB-GF-101	10	GF	101	Science Laboratory D95	Science Laboratory	88.94	10,254.08	115.29	38.02	Basic Teaching	Science		Yes	
PS-106-EFAB-GF-102	10	GF	102	Science Preparation Room	Science Preparation Room	28.67	2,320.70	80.95	24.18	Storage			Yes	
PS-106-EFAB-GF-103	10	GF	103	Science Laboratory D97	Science Laboratory	88.92	10,002.24	112.49	38.02	Basic Teaching	Science		Yes	
PS-106-EFAB-GF-104	10	GF	104	Science Laboratory D98	Science Laboratory	88.75	9,983.55	112.49	37.98	Basic Teaching	Science		Yes	
PS-106-EFAB-GF-105	10	GF	105	Science Preparation Room	Science Preparation Room	28.64	2,330.39	81.37	24.12	Storage			Yes	
PS-106-EFAB-GF-106	10	GF	106	Science Laboratory D94	Science Laboratory	88.90	10,249.70	115.29	38.01	Basic Teaching	Science		Yes	
PS-106-ANC1-GF-107	12	GF	107	Group Room	Group Room	7.81	772.42	98.90	11.34	Learning Resource	General Teaching		Yes	
PS-106-EFAA-LG-108	11	LG	108	Store	Store	4.73	454.60	96.11	8.81	Storage			Yes	
PS-106-EFAB-GF-109	10	GF	109	Main Reception	Main Reception	8.08	696.65	86.22	11.37	Non Net			Yes	
PS-106-EFAB-GF-110	10	GF	110	General Office	General Office	16.60	1,425.15	85.85	16.47	Staff and Admin			Yes	
PS-106-EFAB-GF-111	10	GF	111	Circulation	Circulation	24.49	2,088.49	85.28	30.45	Non Net			Yes	
PS-106-EFAB-GF-112	10	GF	112	HR Advisor & Finance Manager Office	Office	11.44	1,228.27	107.37	14.14	Staff and Admin			Yes	
PS-106-EFAB-GF-113	10	GF	113	Senior Administrator	Office	9.13	1,170.33	128.18	12.29	Staff and Admin			Yes	

BB103 data does not include non-school facilities



3. How Do I Prepare For Falling Rolls?

Look at Pupil Numbers and Pupil Projections and 'Rightsize' Your School

"Good estate management isn't just about growth – it's about optimising what we have."

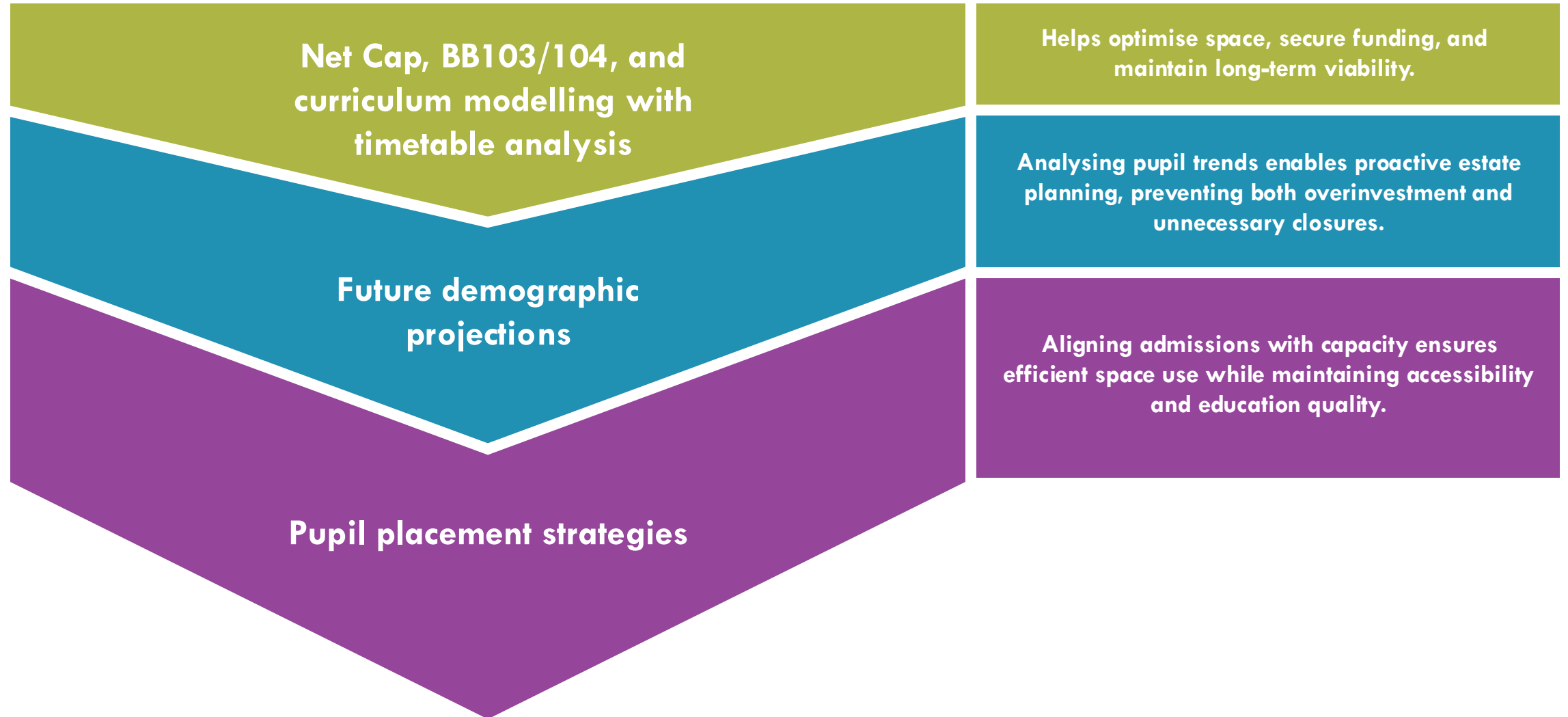
The Shift from Expansion to Efficiency:

Historically, pupil capacity data justified growth – now, it's essential for sustainability.

Strategic Estate Adjustments: Rightsizing school estates to match demand.



Key Data Points for Rightsizing Your School:



Showing Data For...

All Schools

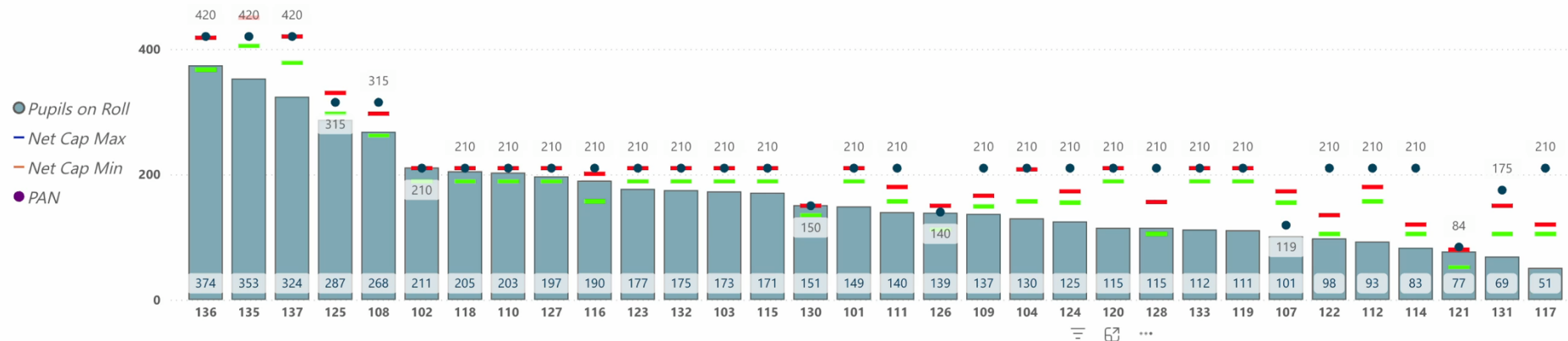
Year Modelled

2025

Pupils on Roll Relative to Theoretical Pupil Capacity for Selected Year

Markers show Planned Admission Number in addition to the minimum and maximum figures for Net Capacity

FOR ILLUSTRATIVE PURPOSES ONLY



GEA

48.43K

GIA

44.51K

GIFA

41.81K

Net Area

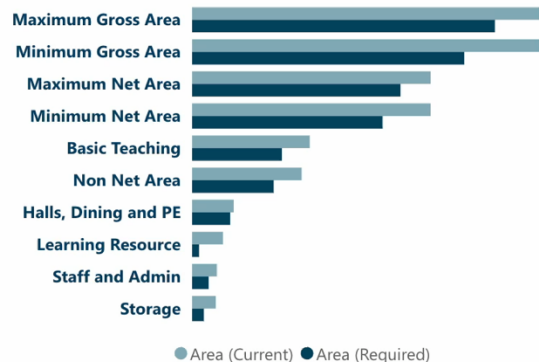
29,239

Non Net Area

13,430

Current and Required Areas by BB103 Category

For the selected school/s



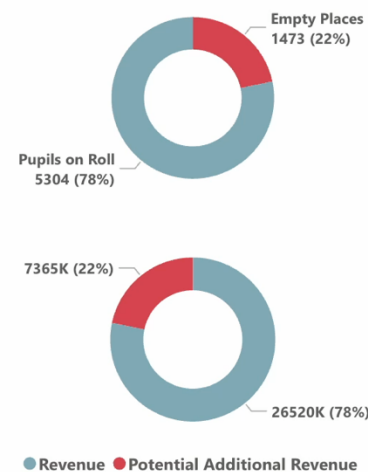
BB103 Category	Area (Current)	(Required)	(Difference)
Basic Teaching	14424	11006	3420
Halls, Dining and PE	5102	4672	449
Learning Resource	3776	859	2918
Non Net Area	13430	10000	3428
Staff and Admin	3031	2029	1003
Storage	2906	1444	1433
Total	42669	30010	12651

Calculate Utilisation/Revenue By

Net Capacity

School Underutilisation

School	Underutilisation
117	58%
131	54%
112	48%
119	47%
133	47%
120	45%
107	42%
104	38%
114	31%
101	29%
124	28%
122	27%
128	26%
137	23%
111	22%
135	22%
115	19%
103	18%
109	17%
132	17%



Pupils on Roll

5304

Empty Places

1473

Net Cap Min

5888

Net Cap Max

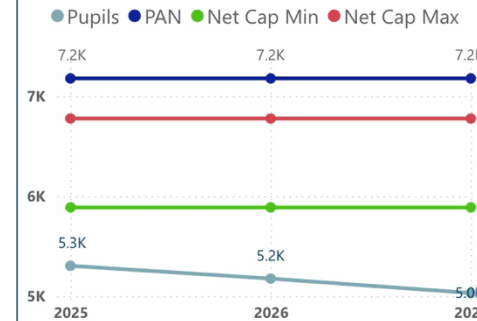
6777

Filter Projection Range

2025

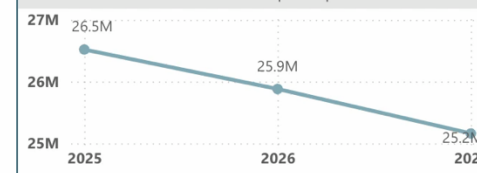
2027

Pupil Projection



Revenue Projection

Based on £5k per Pupil



4. How Do I Prepare For Falling Rolls? Managing SEN / Inclusion

Press release

£740 million allocated for 10,000 new places for pupils with SEND

New SEND places to create more inclusive classrooms in mainstream schools, delivering on Plan for Change to break down barriers to opportunity.

From: [Department for Education](#) and [The Rt Hon Bridget Phillipson MP](#)

Published 27 March 2025

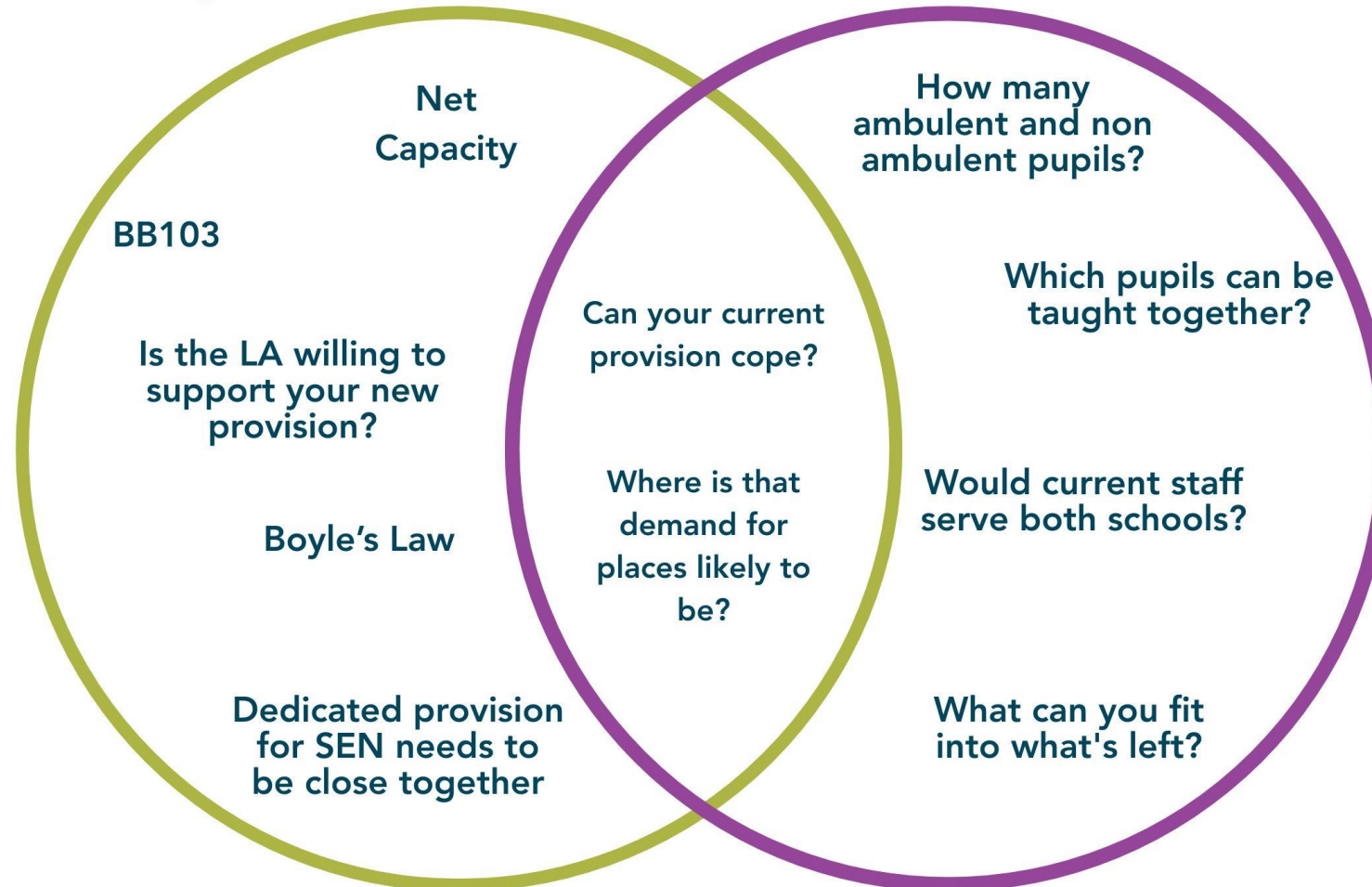


Schools in Your Trust

School	DFE Number	School Name	Local Authority	Address	Phase	PAN	Site Area	Grounds Area	Buildings	Gross External Area (GEA)	Gross Internal Area (GIA)	Gross Internal Floor Area (GIFA)
101	908/3463	St Johns Catholic Primary School, Camborne	Cornwall	Trevu Road, Camborne, TR14 7AE	Primary	30	6,970.32	5,746.01	3	1,224.32	1,171.81	1,102.69
102	908/3718	St Mary's Catholic Primary School, Bodmin	Cornwall	St Mary's Catholic Primary School, Barn Lane, Bodmin, Cornwall, PL31 1LW	Primary	30	10,603.78	8,896.64	7	1,736.94	1,639.86	1,560.19
103	908/3388	St Marys Catholic Primary School, Falmouth	Cornwall	Mongleath Road, Falmouth, Cornwall, TR11 4PW	Primary	30	9,018.06	7,669.18	5	1,357.39	1,303.74	1,253.18
104	908/3306	St Mary's Catholic School, Penzance	Cornwall	Peveler Road, Penzance, TR16 2AT	Primary	30	12,623.39	10,776.37	13	1,846.93	1,746.84	1,677.44
105	879/4605	Notre Dame School	Plymouth	Looseleigh Ln, Plymouth, PL6 5HN	Secondary	140	50,496.31	45,022.48	14	9,053.03	8,539.50	8,026.08
107	879/3763	The Cathedral School of St Mary, Plymouth	Plymouth	Cecil Street, Stonehouse, Plymouth, Devon, PL1 5HW	Primary	17	1,581.93	1,157.44	3	1,074.85	875.00	820.85
108	879/3761	Holy Cross Catholic Primary School	Plymouth	Plymouth PL4 9BE	Primary	45	2,273.73	1,217.18	8	2,424.73	2,000.56	1,809.64
109	879/3762	Keyham Barton Catholic Primary School	Plymouth	Renown Street, Keyham, Plymouth, Devon, PL2 2DE	Primary	30	2,004.62	1,235.40	5	1,772.17	1,242.89	1,128.61
110	879/3765	St Joseph's Catholic Primary School	Plymouth	Chapel Street, Devonport, Plymouth, Devon, PL1 4DJ	Primary	30	9,039.57	7,781.21	7	1,260.41	1,192.49	1,136.32
111	879/2003	St Pauls RC Primary School	Plymouth	Pemros Road, St Budeaux, Plymouth, Devon, PL5 1NE	Primary	30	13,002.36	11,349.01	3	1,653.25	1,544.88	1,455.34
112	879/3766	St Peter's Roman Catholic Primary School	Plymouth	Brentford Avenue, Whiteleigh, Plymouth, Devon, PL5 4HD	Primary	30	4,279.74	2,905.08	2	1,688.91	1,501.54	1,406.48
114	880/3617	Priory RC Primary School	Torbay	St Catherine's Road, St Marychurch, Torquay, Devon, TQ1 4NZ	Primary	30	2,304.99	1,694.15	4	1,126.80	1,003.09	943.05
115	880/3614	Our Lady of the Angels Catholic Primary School	Torbay	Queensway, Chelston, Torquay, Devon, TQ2 6DB	Primary	30	7,599.03	6,547.54	6	1,975.02	1,854.14	1,744.04
116	880/3613	Sacred Heart Catholic Primary and Nursery School	Torbay	Cecil Road, Paignton, Devon, TQ3 2SH	Primary	30	2,601.27	1,483.07	5	1,258.35	1,169.69	1,091.94
117	880/3601	St Margaret Clitherow Catholic Primary School	Torbay	Polhearn Way, Brixham, Devon, TQ5 0EE	Primary	30	7,489.90	6,433.46	9	1,235.90	1,151.18	1,084.38
118	878/3452	Our Lady's Catholic Primary School, Barnstaple	Devon	Chanters Hill, Barnstaple, Devon, EX32 8DN	Primary	30	4,763.98	3,481.06	2	1,282.52	1,206.59	1,129.94
119	878/2036	Our Lady's & St Patrick's RC Primary School	Devon	Fourth Avenue, Teignmouth, Devon, TQ14 9DT	Primary	30	11,319.21	10,310.56	3	1,188.96	1,131.94	1,070.36
120	878/3773	St John's Catholic Primary School, Tiverton	Devon	Melbourne Street, Tiverton, Devon, EX16 5LB	Primary	30	8,793.66	7,598.64	5	1,416.60	1,277.24	1,215.09
121	878/3603	St John's the Baptist's RC Primary School : Dartmouth	Devon	Milton Lane, Dartmouth, Devon, TQ6 9HW	Primary	12	4,033.43	3,426.45	7	606.97	570.38	539.77
122	878/3610	St Joseph's Catholic Primary School, Newton Abbot	Devon	Coombeshead Road, Highweek, Newton Abbot, Devon, TQ12 1PT	Primary	30	3,609.65	2,258.42	3	1,391.01	1,298.47	1,225.83
123	878/3310	St Joseph's RC Primary School, Exmouth	Devon	Regents Gate, Exmouth, Devon, EX8 1TA	Primary	30	8,142.87	6,906.83	5	1,236.05	1,167.48	1,109.64
124	878/3602	St Mary's Catholic Primary School, Buckfast	Devon	Buckfast Road, Buckfast, Buckfastleigh, Devon, TQ11 0EA	Primary	30	10,540.47	9,522.60	4	1,388.74	1,183.18	1,101.50
125	878/2005	St Nicholas Catholic Primary School	Devon	Ringswell Ave, Exeter, EX1 3EG	Primary	45	17,143.15	15,292.49	5	1,926.39	1,825.88	1,736.81
126	878/3301	St Mary's Catholic Primary School, Axminster	Devon	Lyne Road, Axminster, Devon EX13 5BE, United Kingdom	Primary	20	8,038.66	7,108.62	4	930.05	884.68	831.87
127	838/3670	St Augustine's Catholic Primary School, Weymouth	Dorset	Hardy Avenue, Weymouth, Dorset, DT4 0RH	Primary	30	10,345.11	8,641.01	5	1,704.11	1,626.65	1,535.05
128	838/3400	St Catherine's Roman Catholic School	Dorset	Pymore Road, Bridport, Dorset, DT6 3TR	Primary	30	14,094.10	13,055.92	11	1,038.14	984.63	946.51
130	838/3404	St Mary's Catholic First School, Dorchester	Dorset	Lucetta Ln, Dorchester DT1 2DD	Primary	30	13,997.92	12,859.61	17	1,138.33	1,060.00	1,018.94
131	838/3402	St Mary's Catholic School, Marnhull	Dorset	Old Mill Lane, Sturminster Newton, DT10 1JX	Primary	25	6,694.98	5,526.20	7	1,351.74	1,245.93	1,012.38
132	838/3406	St Mary's RC Primary School, Swanage	Dorset	Northbrook Rd, Swanage, BH19 1QE	Primary	30	9,934.67	8,636.15	5	1,090.85	993.60	951.67
133	838/3401	St Mary's & St Joseph's Catholic Primary School	Dorset	Folly Lane, Wool, Wareham, Dorset, BH20 6DS	Primary	30	10,903.19	9,746.25	8	1,156.93	1,084.95	1,038.61
135	839/3611	St Josephs Catholic Primary School	Bournemouth, Christchurch and Poole	Sancreed Road, Poole, BH12 4DZ	Primary	60	12,337.37	10,114.00	12	2,374.01	2,246.89	2,118.70

Considering the School Building

Considering the School Operation



5. How Do I Prepare For Falling Rolls? Nursery Expansion

SCHOOLS
WEEK

Wednesday, 09 Apr 2025

ABOUT ADVERTISING SUBSCRIBER AREA

Principal & Chief
Executive – Bath College
Dodd Partners

View job

Podcast

News Jobs Opinion Features Reviews Sector voice Other

SEARCH



Subscribe

Revealed: The first 300 schools splitting £37m nursery cash

Ministers announced last June they would repurpose empty primary school classrooms to create 100,000 childcare places in 3,334 settings



Freddie Whittaker

2 Apr 2025, 14:48

[More from this author](#)



See discussion



How are you building spaces?

Expansion of existing or
creation of new nursery
provision?





Paul Stewart

Trusts and Facilities Manager, Plymouth Cast

paul.stewart@plymouthcast.org.uk

Jeremy Pilgrim

**Founder and Managing Director,
Building Spatial Intelligence**

jeremy@bspatial.co.uk

