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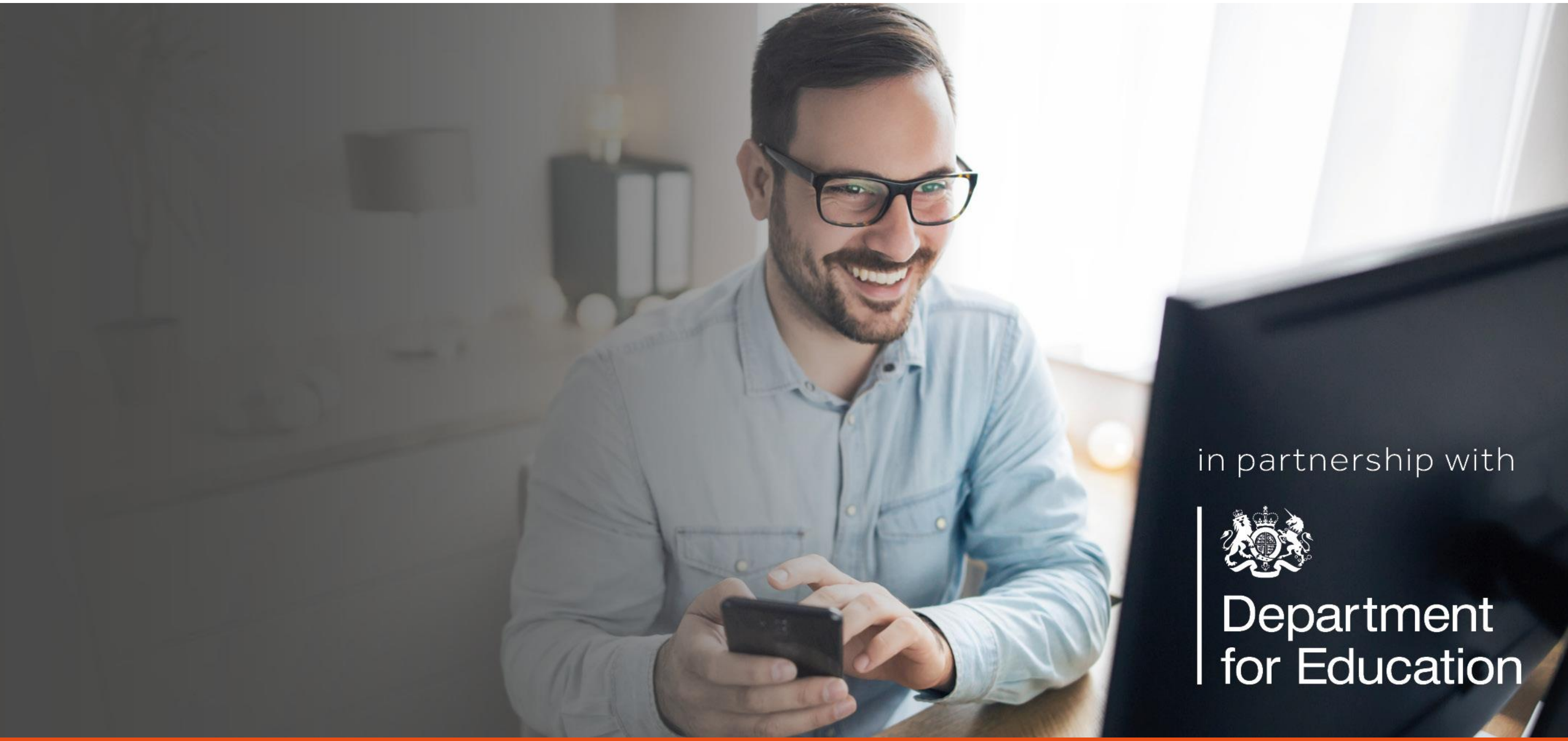
School Resource Management



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Integrated Curriculum and Financial Planning (ICFP)
Step by Step Guidance - Primary Schools

What is ICFP?

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The integrated curriculum and financial planning (ICFP) is a management process that helps schools plan the best curriculum for their pupils with the funding they have available.

It involves measuring your current curriculum, staffing structure and finances, and using data to create a 3 to 5 year plan.

Primary Workbook Template – Step-by-step Guide

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Introduction

There is no workbook of generic *ICFP spreadsheets that will meet the requirement of every school. There is however a set of basic principles that can be applied to suit any school or school group implementing an ICFP approach. The basic principles are outlined in the paper 'Basic Principles of ICFP'.

*Integrated Curriculum and Financial Planning

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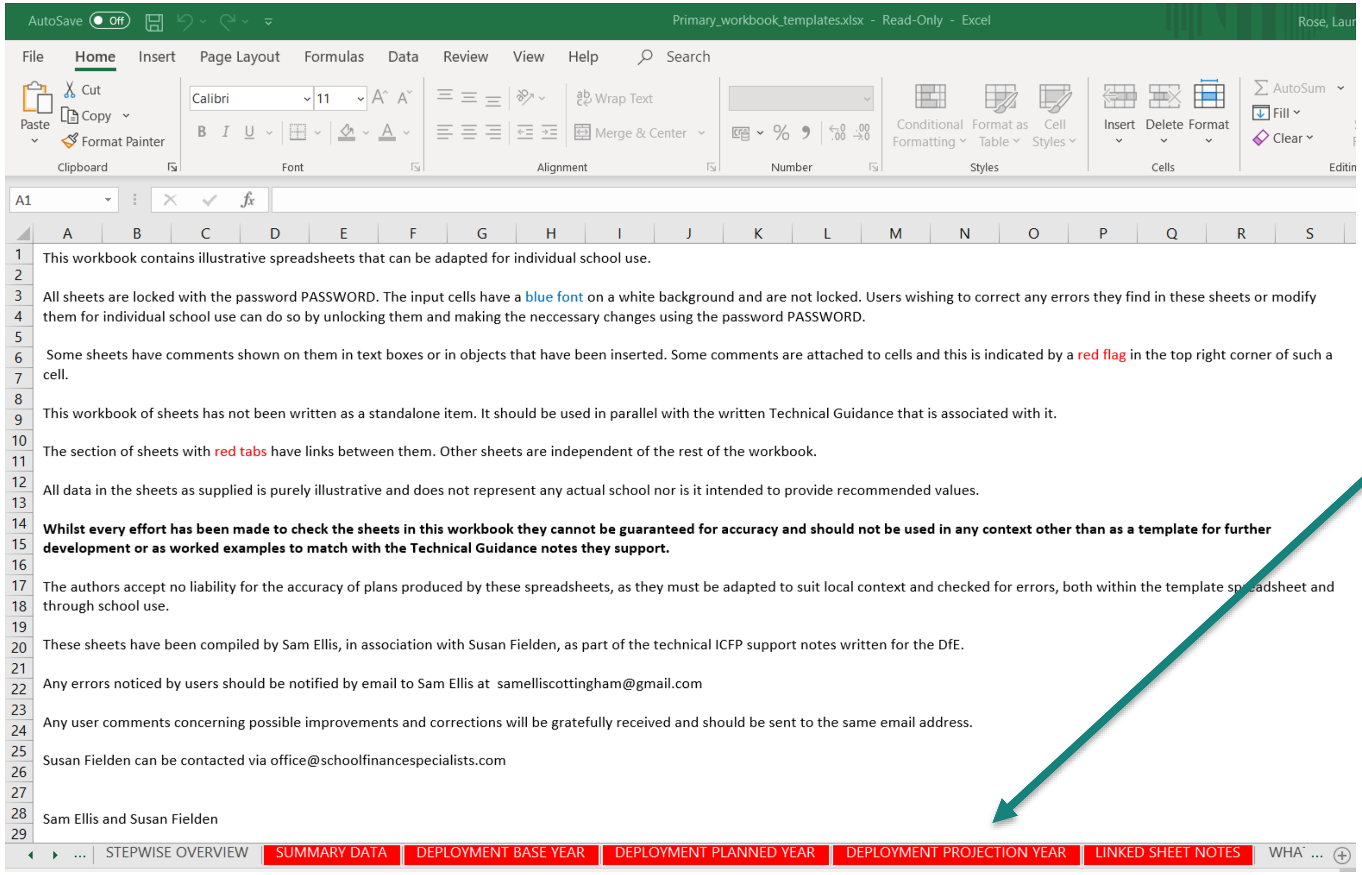
ICFP DfE Tool – Step-by-Step Guide



There are four linked spreadsheets; Summary Data, Deployment Base Year, Deployment Planned Year & Deployment projected year and a set of notes on Linked sheet notes.

Stepwise Overview

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1	This sheet sets out the ICFP process as a series of stepwise calculations starting from the finance perspective and ending with the curriculum perspective. It is possible to write this sheet in the reverse order starting from the curriculum perspective.		
2			
3	To inform the reconcilation process between finance and curriculum views there are four sections at the end of the curriculum section showing the curriculum impact of different FTE values. One of these is a Curriculum user input value. The key question is whether or not the curriculum timetable budget in teacher periods is adequate for the educationa		
4	the school. The approximate financial implications of each of the four options are shown.		
5			
6	Details of every calculation are outlined in column C and there are specific notes attached to some lines indicated with a red flag in the top right corner of the cell. Where figures are described as **shown** to a number of decimal places these have not been rounded and subsequent calculations using those figures are accurate to the limit of the spreadshe		
7	figures are **rounded** up or down to give an estimate that errs on the side of caution. For example this is done where the idea of a fraction of a teacher period is not a useful answer.		
8			
9	This sheet is illustrative of a calculation process. If it were used for actual ICFP analysis it would have the key weakness of not indicating any sense of a trend in the financial situation. It also omits any reference to metrics or KPI values. Because this sheet is set out as an explanation there are more lines shown than are necessary for a basic ICFP type calc		
10			
11			
12			
13	Finance data and calculations from the current 'KNOWN' academic year at typical point in time (e.g. October 1st)		Comment
14	Total available revenue for the KNOWN academic year	£1,966,455	User input line
15	Total expenditure on teacher salary plus on cost in the KNOWN academic year	£932,187	User input line
16	Total expenditure on everything except teacher costs in the KNOWN academic year	£961,842	User input line
17	In year balance for the KNOWN academic year	£72,426	Calculation: Sum of lines 15 and 16 subtracted from line 14
18	Carry forward or Deficit (enter as negative) brought into the KNOWN year from previous years	£126,000	User input line (negative value inputs show in a red font)
19	Cumulative balance at the end of the KNOWN year	£198,426	Calculation: Sum of lines 17 and 18
20	FTE number of teachers in the KNOWN academic year	16.7	User input line
21	Average Teacher cost in the KNOWN academic year	£55,820	Calculation: Line 15 divided by line 20
22			
23	Projected finance data and calculations for the PLANNED academic year		Comment
24	Estimated available revenue for the PLANNED academic year (Excluding carry forward or deficit)	£1,980,909	User input line
25	Percentage change in revenue from KNOWN year (above) to PLANNED year	0.74%	Calculation: Change from line 14 to line 24 as a percentage of line 14
26	Estimated minimum spend on everything except teacher costs for the PLANNED academic year(Could include a planned reserve)	£958,079	User input line
27	Percentage change in minimum spend on everything except teacher costs from KNOWN year (above) to PLANNED year	-0.39%	Calculation: Change from line 16 to line 26 as a percentage of line 16
28	In year revenue available for teaching costs	£1,022,830	Calculation: Line 25 subtracted from line 24
29	Average teacher cost copied from the KNOWN ACADEMIC YEAR above	£55,820	Value copied from line 21 above
30	Estimated percentage change in average teacher cost from the KNOWN ACADEMIC YEAR to the PLANNED ACADEMIC YEAR (enter reduction as -ve)	1.0	User input line
31	Estimated average teacher cost for the PLANNED ACADEMIC YEAR	£56,378	Calculation: line 20 modified by the percentage entered on line 30
32	Estimated number of affordable teachers (FTE) in PLANNED ACADEMIC YEAR in a balanced in year budget (rounded down to 1 dp) (CALLED IN YEAR FTE)	18.1	Calculation: Line 28 divided by line 31 rounded down to one decimal place. Referred to below as "In year FTE"
33	Carry forward or deficit (shown as negative) from known to PLANNED ACADEMIC YEAR copied from above	£198,426	Value copied from line 19 above
34	Change in the number of FTE teachers implied by carry forward or deficit required for no carry forward from PLANNED ACADEMIC YEAR (SHOWN to 1dp)	3.5	Calculation: line 33 divided by line 31 and rounded to 1 decimal place to give an estimate of the FTE teacher equivalent of line 19
35	Approximate FTE teachers required in the PLANNED ACADEMIC YEAR for approximate zero cumulative balance at the end of that year (CALLED CUMULATIVE FTE)	21.6	Calculation: Sum of line 32 and line 34. Referred to below as "Cumulative balance FTE"
36	Proposed number of teachers to be employed in the PLANNED ACADEMIC YEAR (A user decision guided by the information above) (CALLED FINANCE FTE)	16.7	User input line
37			
38	Curriculum data for the KNOWN academic year at the same point in time (e.g. October 1st)		Comment
39	Total number of teacher periods on the timetable in the KNOWN ACADEMIC YEAR	140	User input line
40	Length of timetable cycle in the KNOWN ACADEMIC YEAR	10	User input line
41	FTE Teachers in the KNOWN ACADEMIC YEAR Copied from the finance section above	16.7	Value copied from line 20 above

AUTHOR NOTE | PRIMARY NOTES | STEPWISE OVERVIEW | SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR | DEPLOYMENT PROJECTION Y ...

The overview sheet shows the detail of every key calculation and piece of input data in a flow from the financial and curriculum situation in an academic year where the data is well known through to a planned year where the data and curriculum are being estimated.

Summary Data Sheet

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- The summary data sheet is designed to give an overview of the financial situation over a three to five year period.
- The high level financial approach linked to teacher deployment models will produce a reasonable estimate for the affordable number of FTE teachers for three to five years, which can then be reconciled with the curriculum plans together with a set of KPI’s and metrics. The results can then be checked using whatever financial systems and timetabling system the school have in place.
- Lines 14 to 18, 67 and 68 contain information linked from the deployment sheets.

Summary Data Sheet
Pupil Roll Numbers

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		BASE YEAR	Planned year	Projection year
1		BASE YEAR	Planned year	Projection year
2	Year in which the academic year starts	2020	2021	2022
3	PUPIL ROLL BY YEAR GROUP ESTIMATES			
4	Reception	60	60	60
5	Year 1	60	60	60
6	Year 2	59	60	60
7	Year 3	62	59	60
8	Year 4	63	62	59
9	Year 5	60	63	62
10	Year 6	66	60	63
11	(Check for sense line) Totals	430	424	424

The pupil roll numbers for the base year and best estimates for future years is at the top of the Summary Data sheet.

- It should be noted that the estimate of future pupil roll numbers is a highly significant variable in ICFP work and a small error can have major consequences for financially related decisions.
- Users should consider running three scenarios in parallel to represent most pessimistic, most likely and most optimistic pupil roll values.

Summary Data Sheet
Expenditure & Revenue Summary

20	EXPENDITURE SUMMARY			
21	FTE Teachers employed (or planned to be employed in future years)	16.7	16.7	17.7
22	Total Teacher Cost including on costs	£932,187	£941,509	£1,027,823
23	Total Educational Support Staff cost including on Costs	£280,291	£246,262	£247,897
24	FTE Educational Support Staff Employed	10.5	9.2	9.0
25	Total Admin and Clerical Staff cost including on costs	£21,948	£22,167	£22,611
26	FTE Admin and Clerical Staff Employed	0.8	0.8	0.8
27	Total of all other employed staff costs including on costs	£120,470	£121,918	£121,631
28	FTE total of all other staff employed	5.0	5.0	4.9
29	Total of all other revenue expenditure (i.e. all expenditure not included above)	£539,133	£549,916	£560,914
30	(Check for sense line) Total In Year Expenditure	£1,894,029	£1,881,772	£1,980,876
31	(Check for sense line) In year expenditure per pupil	£4,405	£4,438	£4,672
32	REVENUE SUMMARY			
33	Total in year revenue (exclude any carry forward or deficit)	£1,966,455	£1,980,909	£1,943,877
34	(Check for sense line) Per pupil revenue	£4,573	£4,573	£4,573
35	(Check for sense line) Average Teacher Cost	£55,820	£56,378	£58,069
36	(Check for sense line) Average Educational Support Staff Cost	£26,618	£26,885	£27,422
37	(Check for sense line) Average Admin Staff Cost	£27,782	£28,060	£28,621
38	(Check for sense line) Average All Other Employed staff cost	£24,046	£24,286	£24,772
39	In Year Balance	£72,426	£99,137	-£36,999
40	Carry forward or deficit (enter as negative) from previous years	£126,000	N/A	N/A
41	Cumulative Balance	£198,426	£297,563	£260,565
42	PERCENTAGE CHANGES IN REVENUE AND COSTS FROM PREVIOUS YEAR			
43	Percentage change in Average Teacher Cost	N/A	1.0	3.0
44	Percentage change in Educational Support staff cost	N/A	1.0	2.0
45	Percentage change in Admin and Clerical staff cost	N/A	1.0	2.0
46	Percentage change in All Other Employed Staff cost	N/A	1.0	2.0
47	Percentage change in all other revenue expenditure	N/A	2.0	2.0
48	Percentage change in per pupil revenue	N/A	0.74%	-1.87%

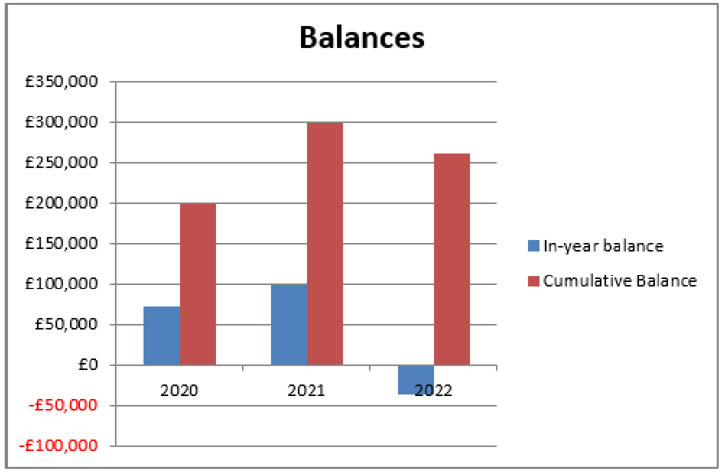
Lines 21 to 48 give a summary of revenue funding and expenditure. The facility to make estimated percentage changes in key values for the planned and projected years is included in lines 43 to 48.

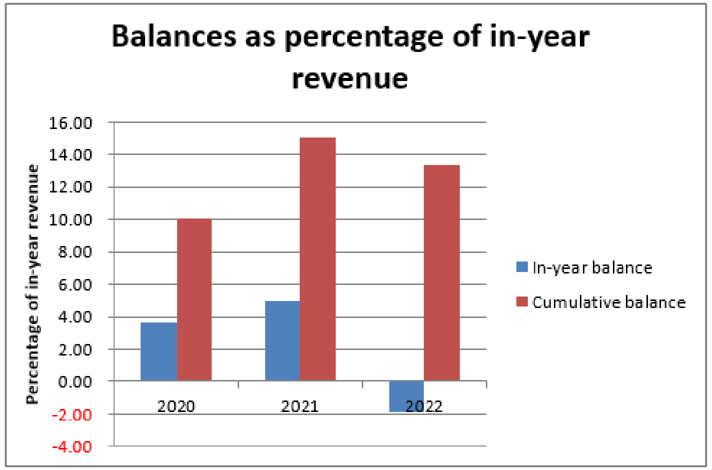
Lines 21,24,26 and 28 allow the user to test out FTE values of staff in different categories to see the impact on the financial bottom line.

Summary Data Sheet
Expenditure & Revenue Summary Continued

20	EXPENDITURE SUMMARY			
21	FTE Teachers employed (or planned to be employed in future years)	16.7	16.7	17.7
22	Total Teacher Cost Including on costs	£932,187	£941,509	£1,027,823
23	Total Educational Support Staff cost including on Costs	£280,291	£246,262	£247,897
24	FTE Educational Support Staff Employed	10.5	9.2	9.0
25	Total Admin and Clerical Staff cost including on costs	£21,948	£22,167	£22,611
26	FTE Admin and Clerical Staff Employed	0.8	0.8	0.8
27	Total of all other employed staff costs including on costs	£120,470	£121,918	£121,631
28	FTE total of all other staff employed	5.0	5.0	4.9
29	Total of all other revenue expenditure expenditure (i.e. all expenditure not included above)	£539,133	£549,916	£560,914
30	(Check for sense line) Total In Year Expenditure	£1,894,029	£1,881,772	£1,980,876
31	(Check for sense line) In year expenditure per pupil	£4,405	£4,438	£4,672
32	REVENUE SUMMARY			
33	Total in year revenue (exclude any carry forward or deficit)	£1,966,455	£1,980,909	£1,943,877
34	(Check for sense line) Per pupil revenue	£4,573	£4,573	£4,573
35	(Check for sense line) Average Teacher Cost	£55,820	£56,378	£58,069
36	(Check for sense line) Average Educational Support Staff Cost	£26,618	£26,885	£27,422
37	(Check for sense line) Average Admin Staff Cost	£27,782	£28,060	£28,621
38	(Check for sense line) Average All Other Employed staff cost	£24,046	£24,286	£24,772
39	In Year Balance	£72,426	£99,137	-£36,999
40	Carry forward or deficit (enter as negative) from previous years	£126,000	N/A	N/A
41	Cumulative Balance	£198,426	£297,563	£260,565

The bottom line shown on lines 39 and 41 and as bar charts like below.





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Summary Data Sheet Staffing

20	EXPENDITURE SUMMARY			
21	FTE Teachers employed (or planned to be employed in future years)	16.7	16.7	17.7
22	Total Teacher Cost Including on costs	£932,187	£941,509	£1,027,823
23	Total Educational Support Staff cost including on Costs	£280,291	£246,262	£247,897
24	FTE Educational Support Staff Employed	10.5	9.2	9.0
25	Total Admin and Clerical Staff cost including on costs	£21,948	£22,167	£22,611
26	FTE Admin and Clerical Staff Employed	0.8	0.8	0.8
27	Total of all other employed staff costs including on costs	£120,470	£121,918	£121,631
28	FTE total of all other staff employed	5.0	5.0	4.9
29	Total of all other revenue expenditure expenditure (i.e. all expenditure not included above)	£539,133	£549,916	£560,914
30	(Check for sense line) Total In Year Expenditure	£1,894,029	£1,881,772	£1,980,876
31	(Check for sense line) In year expenditure per pupil	£4,405	£4,438	£4,672

The sheet uses an estimate of the average staff salary in the base year as a basis for calculation in the planned year. Similarly the expected cost in the planned year is used to make an estimate of the expected cost in the projected year.

In the planned and projected years the final staffing for any staff line will not be known in final detail so the total cost of each staff line needs to be estimated from what is known and what can be guessed. Some users may well just wish to use their own software and approach and change all the total staff costs on lines 22, 23, 25 and 27 to user input values.

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Summary Data Sheet
FTE Teachers

12	CURRICULUM DATA			
13	FTE Teachers employed (or planned to be employed in future years) COPIED FROM LINE 20 below	16.7	16.7	17.7
14	FTE Teachers Required in future years (Copied from the DEPLOYMENT SHEETS)	N/A	17.9	17.9
15	Contact ratio from DEPLOYMENT SHEETS (Shown to 3 decimal places)	0.838	0.782	0.782
16	Length of timetable cycle (Copied from the DEPLOYMENT SHEETS)	10	10	10
17	Average teaching load (Copied from the DEPLOYMENT SHEETS) Shown to 2 decimal places	8.38	7.82	7.82
18	Average class size i.e. pupil to teacher ratio in the curriculum (Copied from DEPLOYMENT SHEETS) shown to 2 decimal places	30.71	30.29	30.29
19	FTE value of Teacher role staff required in term time assuming 1FTE delivers a full timetable cycle of teaching periods	0.70	0.70	0.70

The cells highlighted in red are conditionally formatted to draw attention to the relationship with the total of FTE teachers from a financial perspective. The red flag in the upper right corner of A14 indicates a comment on this which can be read by placing the curser over that cell.

Line 13 has a copy of the number of FTE teachers employed in the base year and the proposed number to be employed from the financial perspective in the planned and projected years.

The values for FTE teachers required shown on line 14 are the outputs from the planning sheet ‘Deployment Planned year’ and ‘Deployment Projected year’.

Line 19 shows the FTE equivalent of Teacher role staff required on the curriculum plans. This is calculated as if 1FTE teacher role staff member delivers full cycle of teaching periods.

Summary Data Sheet Continued..

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- Reconciliations between finance and curriculum FTE teacher values is achieved by adjusting values on the finance sheets or on the deployment sheets or on both.
- This workbook produces a wide range of statistics and KPI’s that schools could measure – but schools and trusts should instead choose the metrics that are most pertinent to their circumstances.

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Summary Data Sheet
Summary Statistics

49	SUMMARY STATISTICS (Example potential KPI and benchmark values)				
50	Per Pupil Revenue (in Year)	£4,573	£4,573	£4,573	
51	Average Teacher Cost	£55,820	£56,378	£58,069	
52	In year balance as a percentage of in year revenue	3.68	5.00	-1.90	
53	Cumulative balance as a percentage of the in year revenue	10.09	15.02	13.40	
54	Pupil to teacher ratio (This is the number of pupils on roll divided by the number of teachers employed)	25.74850	25.38922	23.95480	
55	Teacher contact ratio	0.838	0.782	0.782	The product of these two quantities equals the Pupil to Teacher Ratio in the school
56	Average Class Size (Pupil to teacher ratio in timetable) for PTR and Contact ratio on previous two lines	30.71	32.45	30.62	
57	Average Class Size (Pupil to teacher ratio in timetable) on DEPLOYMENT SHEETS (see comment attached to cell)	30.71	30.29	30.29	
58	Pupil to teaching staff ratio in timetable (includes teacher role staff)	29.25	28.84	28.84	These two lines provide more meaningful statistics for a primary school context than the strict definition of Average class size used elsewhere
59	Average size of a teaching group (i.e classes into which pupils are organised)	30.71	30.29	30.29	
60	Proportion of in year revenue spent on teaching staff	47%	48%	53%	
61	Proportion of in year revenue available for teaching in a balanced budget if all other costs are fixed	51.1%	52.5%	51.0%	
62	PTR value in a balanced budget based on in year revenue	23.9	23.5	24.9	
63	AFFORDABLE FTE TEACHERS in a balanced budget (Shown to 1 decimal place)	18.0	18.1	17.0	
64	FTE TEACHERS EMPLOYED	16.7	16.7	17.7	
65	Teachers employed to Ed support staff ratio	1.6	1.8	2.0	
66	All staff to admin staff ratio	41.8	40.1	41.1	
67	Pupil to Ed support staff ratio	40.8	46.3	46.9	
68	Pupil to adult ratio	13.0	13.4	13.1	
69	Proportion of revenue spent on staff costs	68.9%	67.2%	73.0%	

The statistical section summarises a list of possible targets, benchmarking values and KPI's.

Deployment Base Year

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Cell B2 is copied from the Summary data sheet.
Cell B3 is a user input on this sheet and is copied to the summary data sheet. Pupil roll numbers in column B are copied from the summary data sheet.

	A	B	C	D	E	F	G	H
1	Deployment plan for the base year (Teachers and Educational Support Staff who act in teacher role)							
2	Year	2020	This section records the actual teacher period allocations and brief curriculum descriptions of the actual timetable in use in the base year.					
3	Timetable cycle length in periods	10						
4	National Curriculum Year	Pupil Roll	Reorganised Area Name or NC year if no reorganisation applied	Pupil Roll	Number of classes	tp Allocation	Teacher role period (trp) allocation	NOTES
5	Reception	60	Reception	60	2	20	0	2 classes 10tp per class plus 0 trp per class
6	Year 1	60	Y1	60	2	20	0	2 classes 10tp per class plus 0 trp per class
7	Year 2	59	Y2	60	2	20	0	2 classes 10tp per class plus 0 trp per class
8	Year 3	62	Y3	60	2	20	0	2 classes 10tp per class plus 0 trp per class
9	Year 4	63	Y4	60	2	20	0	2 classes 10tp per class plus 0 trp per class
10	Year 5	60	Y5	60	2	20	0	2 classes 10tp per class plus 0 trp per class
11	Year 6	66	Y6	60	2	20	0	2 classes 10tp per class plus 0 trp per class
12	Whole School Areas (i.e. all other teacher contact time not allocated in year group sections above)							
13	Learning Support	n/a				0	0	Senco does 0 half days extracting target pupils from classes
14	Intervention activity	n/a				0	7	Team Teaching; literacy numeracy. 7 half days HLTA in team teaching
15	Other teacher contact time	n/a				0	0	0 half days music support from a piano playing HLTA
16	Overall totals							
17		Roll				tp Allocation	trp allocation	
18	Totals	430			14	140	7	
19	TEACHING IMPLICATIONS							
20	Average Class Size (PTR in the curriculum)		30.71					
21	Teacher Contact Ratio		0.8383	This is shown to four places of decimals to give a reasonable level of accuracy in a small school				
22	Average teaching load		8.38	Uses employed FTE teachers from SUMMARY SHEET				
23	FTE Teacher role staff required		0.70	Assumes 1 FTE delivers a full cycle of periods				
24–26	FTE TEACHERS EMPLOYED	16.7	Copied from SUMMARY DATA					
27	Pupil to teaching staff ratio		29.3	Includes teacher role staff				
28	Average teaching group size		30.7	Average size of classes as organised				

AUTHOR NOTE | PRIMARY NOTES | STEPWISE OVERVIEW | SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR

In the deployment base year sheet the average teaching load and hence the teacher contact ratio is the result or output of the sheet.

Deployment Base Year Continued..

Columns C, D & E lines 5 to 11 allow the user to reorganise the pupils into groups which are combinations of National Curriculum years, with names specific to the school and then into numbers of classes.

Teaching time is allocated in columns F & G. Column F is for periods supplied by teachers and column G is for periods supplied by staff acting in a teacher role such as HLTA staff.

Some schools may find it more convenient to extend the number of lines on the table so there is only one class per line with the original number of National Curriculum year pupils distributed across the lines.

	A	B	C	D	E	F	G	H
1	Deployment plan for the base year (Teachers and Educational Support Staff who act in teacher role)							
2	Year	2020	This section records the actual teacher period allocations and brief curriculum descriptions of the actual timetable in use in the base year.					
3	Timetable cycle length in periods	10						
4	National Curriculum Year	Pupil Roll	Reorganised Area Name or NC year if no reorganisation applied	Pupil Roll	Number of classes	tp Allocation	Teacher role period (trp) allocation	NOTES
5	Reception	60	Reception	60	2	20	0	2 classes 10tp per class plus 0 trp per class
6	Year 1	60	Y1	60	2	20	0	2 classes 10tp per class plus 0 trp per class
7	Year 2	59	Y2	60	2	20	0	2 classes 10tp per class plus 0 trp per class
8	Year 3	62	Y3	60	2	20	0	2 classes 10tp per class plus 0 trp per class
9	Year 4	63	Y4	60	2	20	0	2 classes 10tp per class plus 0 trp per class
10	Year 5	60	Y5	60	2	20	0	2 classes 10tp per class plus 0 trp per class
11	Year 6	66	Y6	60	2	20	0	2 classes 10tp per class plus 0 trp per class
12	Whole School Areas (i.e. all other teacher contact time not allocated in year group sections above)							
13	Learning Support	n/a				0	0	Senco does 0 half days extracting target pupils from classes
14	Intervention activity	n/a				0	7	Team Teaching; literacy numeracy. 7 half days HLTA in team teaching
15	Other teacher contact time	n/a				0	0	0 half days music support from a piano playing HLTA
16	Overall totals							
17		Roll				tp Allocation	trp allocation	Plot Area
18	Totals	430			14	140	7	
19	TEACHING IMPLICATIONS							
20	Average Class Size (PTR in the curriculum)		30.71					
21	Teacher Contact Ratio		0.8383	This is shown to four places of decimals to give a reasonable level of accuracy in a small school				
22	Average teaching load		8.38	Uses employed FTE teachers from SUMMARY SHEET				
23	FTE Teacher role staff required		0.70	Assumes 1 FTE delivers a full cycle of periods				
24–26	FTE TEACHERS EMPLOYED	16.7	Copied from SUMMARY DATA					
27	Pupil to teaching staff ratio		29.3	Includes teacher role staff				
28	Average teaching group size		30.7	Average size of classes as organised				

AUTHOR NOTE | PRIMARY NOTES | STEPWISE OVERVIEW | SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR

Deployment Base Year Continued..

	A	B	C	D	E	F	G	H
1	Deployment plan for the base year (Teachers and Educational Support Staff who act in teacher role)							
2	Year	2020	This section records the actual teacher period allocations and brief curriculum descriptions of the actual timetable in use in the base year.					
3	Timetable cycle length in periods	10						
4	National Curriculum Year	Pupil Roll	Reorganised Area Name or NC year if no reorganisation applied	Pupil Roll	Number of classes	tp Allocation	Teacher role period (trp) allocation	NOTES
5	Reception	60	Reception	60	2	20	0	2 classes 10tp per class plus 0 trp per class
6	Year 1	60	Y1	60	2	20	0	2 classes 10tp per class plus 0 trp per class
7	Year 2	59	Y2	60	2	20	0	2 classes 10tp per class plus 0 trp per class
8	Year 3	62	Y3	60	2	20	0	2 classes 10tp per class plus 0 trp per class
9	Year 4	63	Y4	60	2	20	0	2 classes 10tp per class plus 0 trp per class
10	Year 5	60	Y5	60	2	20	0	2 classes 10tp per class plus 0 trp per class
11	Year 6	66	Y6	60	2	20	0	2 classes 10tp per class plus 0 trp per class
12	Whole School Areas (i.e. all other teacher contact time not allocated in year group sections above)							
13	Learning Support	n/a				0	0	Senco does 0 half days [illegible]acting target pupils from classes
14	Intervention activity	n/a				0	7	Team Teachin[illegible]eracy numeracy. 7 half days HLTA in team teaching
15	Other teacher contact time	n/a				0	0	0 [illegible]ys music support from a piano playing HLTA
16	Overall totals							
17		Roll				tp Allocation	trp allocation	Plot Area
18	Totals	430			14	140	7	
19	TEACHING IMPLICATIONS							
20	Average Class Size (PTR in the curriculum)		30.71					
21	Teacher Contact Ratio		0.8383	This is shown to four places of decimals to give a reasonable level of accuracy in a small school				
22	Average teaching load		8.38	Uses employed FTE teachers from SUMMARY SHEET				
23	FTE Teacher role staff required		0.70	Assumes 1 FTE delivers a full cycle of periods				
24–26	FTE TEACHERS EMPLOYED	16.7	Copied from SUMMARY DATA					
27	Pupil to teaching staff ratio		29.3	Includes teacher role staff				
28	Average teaching group size		30.7	Average size of classes as organised				
29–36								

AUTHOR NOTE | PRIMARY NOTES | STEPWISE OVERVIEW | SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR

The average class size statistic shown on line 20 is the pupil to teacher ratio. The teacher role staff are not included in this calculation but any whole school periods supplied by teachers are included. This means that the average size of a teaching group is not the same as this statistic shows. This is important because it can be used in making a comparison with similar schools

C21 gives the teacher contact ratio as the result of the base year deployment analysis. This is the second of the five variables in the fundamental equation governing ICFP.

Deployment Planned Year

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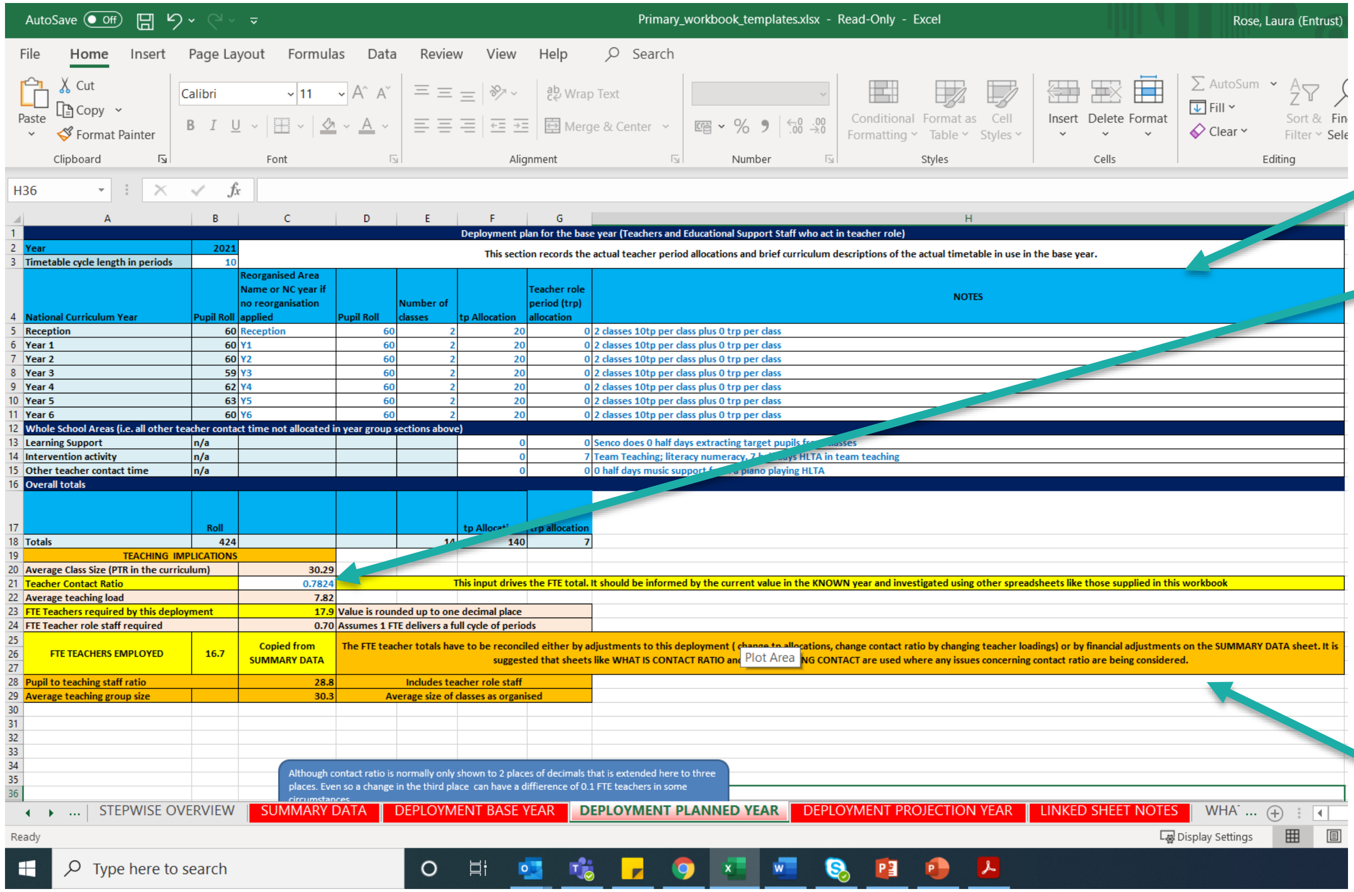

Primary_workbook_templates.xlsx - Read-Only - Excel

	A	B	C	D	E	F	G	H
1	Deployment plan for the base year (Teachers and Educational Support Staff who act in teacher role)							
2	Year	2021	This section records the actual teacher period allocations and brief curriculum descriptions of the actual timetable in use in the base year.					
3	Timetable cycle length in periods	10						
4	National Curriculum Year	Pupil Roll	Reorganised Area Name or NC year if no reorganisation applied	Pupil Roll	Number of classes	tp Allocation	Teacher role period (trp) allocation	NOTES
5	Reception	60	Reception	60	2	20	0	2 classes 10tp per class plus 0 trp per class
6	Year 1	60	Y1	60	2	20	0	2 classes 10tp per class plus 0 trp per class
7	Year 2	60	Y2	60	2	20	0	2 classes 10tp per class plus 0 trp per class
8	Year 3	59	Y3	60	2	20	0	2 classes 10tp per class plus 0 trp per class
9	Year 4	62	Y4	60	2	20	0	2 classes 10tp per class plus 0 trp per class
10	Year 5	63	Y5	60	2	20	0	2 classes 10tp per class plus 0 trp per class
11	Year 6	60	Y6	60	2	20	0	2 classes 10tp per class plus 0 trp per class
12	Whole School Areas (i.e. all other teacher contact time not allocated in year group sections above)							
13	Learning Support	n/a				0	0	Senco does 0 half days extracting target pupils from classes
14	Intervention activity	n/a				0	7	Team Teaching; literacy numeracy. 7 half days HLTA in team teaching
15	Other teacher contact time	n/a				0	0	0 half days music support from a piano playing HLTA
16	Overall totals							
17		Roll				tp Allocation	trp allocation	
18	Totals	424			14	140	7	
19	TEACHING IMPLICATIONS							
20	Average Class Size (PTR in the curriculum)		30.29					
21	Teacher Contact Ratio		0.7824	This input drives the FTE total. It should be informed by the current value in the KNOWN year and investigated using other spreadsheets like those supplied in this workbook				
22	Average teaching load		7.82					
23	FTE Teachers required by this deployment		17.9	Value is rounded up to one decimal place				
24	FTE Teacher role staff required		0.70	Assumes 1 FTE delivers a full cycle of periods				
25–27	FTE TEACHERS EMPLOYED	16.7	Copied from SUMMARY DATA	The FTE teacher totals have to be reconciled either by adjustments to this deployment (change tp allocations, change contact ratio by changing teacher loadings) or by financial adjustments on the SUMMARY DATA sheet. It is suggested that sheets like WHAT IS CONTACT RATIO and [illegible] NG CONTACT are used where any issues concerning contact ratio are being considered.				
28	Pupil to teaching staff ratio		28.8	Includes teacher role staff				
29	Average teaching group size		30.3	Average size of classes as organised				

Although contact ratio is normally only shown to 2 places of decimals that is extended here to three places. Even so a change in the third place can have a diffierence of 0.1 FTE teachers in some circumstances

STEPWISE OVERVIEW | SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR | DEPLOYMENT PROJECTION YEAR | LINKED SHEET NOTES

The planned curriculum outlined in words in column H and teacher period totals in column F. The teacher to contact ratio value in C21 converts the teacher period total to an FTE number of teachers shown on line 23.

The section shown in yellow on lines 25 to 27 in column B above is copied from the finance information on the summary data sheet.

What is Contact Ratio?

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SUMMARY STASTISTICS		
FTE Teachers employed	16	Sum of FTE values in column F
Total contact periods provided	140	Sum of contact periods in column H
Average Load	8.75	Calculation: B5 divided by B4
Periods per cycle	10	Copy of value in E2

This is an outline example of the type of spreadsheet that is used to summarise teaching contact where the teaching staff are known or mostly known.

All data in the sheet as supplied is illustrative and does not represent recommended values

For a full definition of PPA and Management time readers are strongly recommended to look at the current copy of the School Teachers' Pay and Conditions of Service document (STPCD). There is also a separate document available covering the teaching time allocation for NQT staff

Periods in the cycle: 10

Name	Roll	FTE	Employed Periods	Contact periods	Non contact periods: PPA	Non contact periods: Management	Non contact periods: Other	Check Total	PPA as % of Contact
Head	Headteacher	1	10	6	0	4	0	10	0.0%
Deputy	Deputy Head	1	10	8	0	2	0	10	0.0%
Teacher Reception 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y1 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y1 2	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y2 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y2 2	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y3 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y3 2	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y4 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y5 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y5 2	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y6 1	Teacher	1	10	9	1	0	0	10	11.1%
Teacher Y6 2	Teacher	1	10	9	1	0	0	10	11.1%
PT Teacher Reception	Teacher	0.6	6	5.5	0.5	0	0	6	9.1%
PT Teacher Reception / Y4	Teacher	0.8	8	7	1	0	0	8	14.3%
PT Teacher Y4	Teacher	0.6	6	5.5	0.5	0	0	6	9.1%
								0	n/a
								0	n/a
		16	160	140	14	6	0		

Plot Area

Totals for teacher periods available in each subject area at the foot of these columns must be equal to or less than the totals required in each subject in the full curriculum plan for a timetable to be feasible.

SUMMARY DATA | DEPLOYMENT BASE YEAR | DEPLOYMENT PLANNED YEAR | DEPLOYMENT PROJECTION YEAR | LINKED SHEET NOTES | WHAT IS CONTACT RATIO

This sheet gives detailed example of the contact ratio idea for users who are not already familiar with it.

What is the Modelling Contact Sheet?

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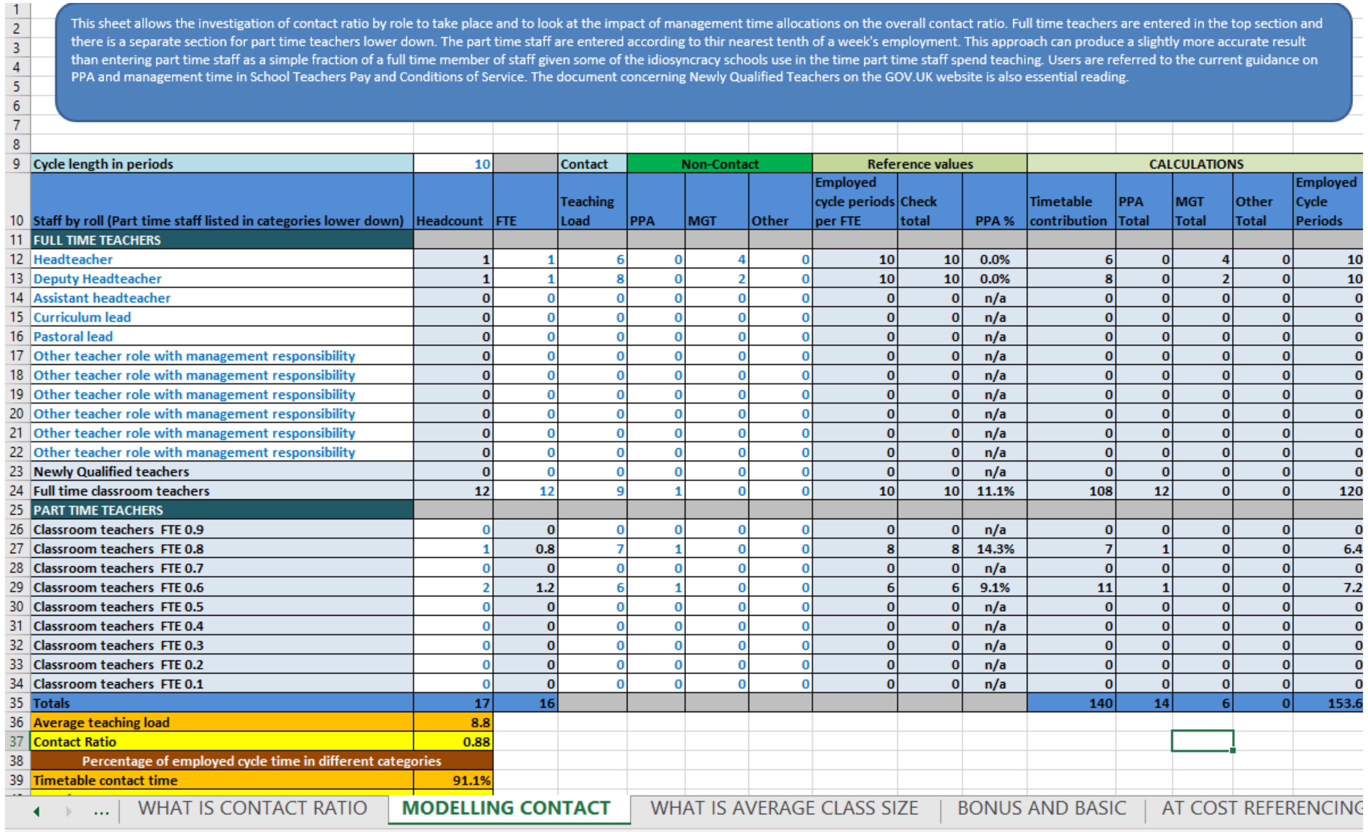

This sheet allows the investigation of contact ratio by role to take place and to look at the impact of management time allocations on the overall contact ratio. Full time teachers are entered in the top section and there is a separate section for part time teachers lower down. The part time staff are entered according to thir nearest tenth of a week's employment. This approach can produce a slightly more accurate result than entering part time staff as a simple fraction of a full time member of staff given some of the idiosyncracy schools use in the time part time staff spend teaching. Users are referred to the current guidance on PPA and management time in School Teachers Pay and Conditions of Service. The document concerning Newly Qualified Teachers on the GOV.UK website is also essential reading.

Cycle length in periods	10		Contact	Non-Contact			Reference values			CALCULATIONS				
Staff by roll (Part time staff listed in categories lower down)	Headcount	FTE	Teaching Load	PPA	MGT	Other	Employed cycle periods per FTE	Check total	PPA %	Timetable contribution	PPA Total	MGT Total	Other Total	Employed Cycle Periods
FULL TIME TEACHERS														
Headteacher	1	1	6	0	4	0	10	10	0.0%	6	0	4	0	10
Deputy Headteacher	1	1	8	0	2	0	10	10	0.0%	8	0	2	0	10
Assistant headteacher	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Curriculum lead	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Pastoral lead	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Other teacher role with management responsibility	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Newly Qualified teachers	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Full time classroom teachers	12	12	9	1	0	0	10	10	11.1%	108	12	0	0	120
PART TIME TEACHERS														
Classroom teachers FTE 0.9	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.8	1	0.8	7	1	0	0	8	8	14.3%	7	1	0	0	6.4
Classroom teachers FTE 0.7	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.6	2	1.2	6	1	0	0	6	6	9.1%	11	1	0	0	7.2
Classroom teachers FTE 0.5	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.4	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.3	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.2	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Classroom teachers FTE 0.1	0	0	0	0	0	0	0	0	n/a	0	0	0	0	0
Totals	17	16								140	14	6	0	153.6
Average teaching load	8.8													
Contact Ratio	0.88													
Percentage of employed cycle time in different categories														
Timetable contact time	91.1%													

This sheet allows the contact ratio value to be modelled for future years where the teaching staff structure is reasonably well known but the individual teachers are not known. It also allows the user to investigate the extent to which management time changes can modify the contact ratio value once all staff have the appropriate allocation of PPA time.

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What is the Average Class Size Sheet?

	A	B	C
1	**Whole school example**		
2	**Pupil Roll**	424	
3	**Teacher periods allocated on the timetable**	140	
4	**Periods in the timetable cycle**	10	
5	**Average number of teachers in teaching contact on any one period**	**14**	Calculation: Line 3 divided by line 4
6	**Average number of pupils per teacher on any one period (=AVERAGE CLASS SIZE)**	**30.28571**	Calculation: Line 2 divided by line 5
7			
8	**Average Teaching Group size (includes teacher role staffing**		
9	**Pupil Roll**	424	
10	**Teacher periods allocated on the timetable**	140	
11	**Teacher role periods allocated on the timetable**	7	
12	**Total teaching periods on the timetable**	**147**	
13	**Periods in the timetable cycle**	10	
14	**Average number of teachers in teaching contact on any one period**	**14**	Calculation: Line 10 divided by line 13
15	**Average number of pupils per teacher on any one period (=AVERAGE CLASS SIZE)**	**30.28571**	Calculation: Line 9 divided by line 14
16	**Average size of a teaching group (Includes teacher role staff)**	**28.84354**	Calculation:line 9 multiplied by line 13 and the answer divided by line 12

Average Class Size is the traditional name for the pupil to teacher ratio in the timetable. In a timetable cycle of length *w* with *T* teacher periods allocated and a roll of *R* pupils the calculation is

$$Average\ Class\ Size = \frac{Rw}{T}$$

This formula is developed stepwise on lines 5 and 6 above to illustrate how it is derived.

Average class size is independent of the number of periods in the timetable cycle so it can be used as a metric to compare the outcome of teacher time in terms of the pupil to teacher ratio between timetables with different cycle lengths.

There is a difference between the Average Class Size and the size of an average teaching group when the teaching staff include teacher role staff This is illustrated in the second table.

The total number of teacher periods and teacher role periods includes some periods used for learning support by extracting pupils and some periods used for team teaching. To calculate the average size of a teaching group when all pupils are attending it and there are no pupils extracted for learning support simply divide the number of pupils by the number of classes.

... | WHAT IS CONTACT RATIO | MODELLING CONTACT | **WHAT IS AVERAGE CLASS SIZE** | BONUS AND BASIC | AT COST REFERENCING | METRICS

Ready

The sheet provides a stepwise explanation of average class size and illustrates the difference between that and average teaching group size.

What is the Bonus & Basic Sheet?

- Bonus and basic are curriculum analysis terms which are in current use in some schools and academy chains and by some groups of external consultants.
- When accurately defined they do not apply in primary schools although there are ways of redefining them for primary school use.
- Because there is no standard convention for this the spreadsheet in the workbook is just a text box explaining the idea.

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What is the at Cost Referencing Sheet?

There are no user inputs on this sheet as it is intended as an illustration of a particular set of figures. The subsidy % can be displayed as a bar chart.

Estimated Average Teacher Cost	£44,000
Estimated total revenue	£1,640,000
Estimated spend on everything except teachers (this could include putting some funding on reserve)	£892,000
Proportion of revenue available for teacher cost	0.46
Periods in timetable cycle	10
Teacher contact ratio	0.790
Pupil Roll	410
Per pupil teacher period allocation at an 'at cost' level (shown to 2 places of decimals but not rounded)	0.33
Revenue cost of one teacher period	£12,211

Year /Area	Roll	At cost tp	Actual tp Allocation	Curriculum structure notes	Subsidy	Subsidy as % of total revenue
Reception	60	19.7	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£20,194	-1.2%
Year 1	58	19.0	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£12,194	-0.7%
Year 2	57	18.7	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£8,194	-0.5%
Year 3	60	19.7	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£20,194	-1.2%
Year 4	58	19.0	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£12,194	-0.7%
Year 5	57	18.7	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£8,194	-0.5%
Year 6	60	19.7	18	2 classes 9tp Plus 1 teacher role period (not shown) per class	-£20,194	-1.2%
Whole school learning support	0	0.0	5	5 tp allocated	£61,057	3.7%
Whole school intervention	0	0.0	2	2 tp allocated	[illegible]423	1.5%
Tp reserve or overuse (-ve)	0	0.0	1.30	Positive value= timetabling flexibility. Negative level=teacher overspend	£15,875	1.0%
	410	134.3	134.3			

WHAT IS CONTACT RATIO | MODELLING CONTACT | WHAT IS AVERAGE CLASS SIZE | BONUS AND BASIC | AT COST REFERENCING | METRICS

This sheet shows a way of referencing a teacher deployment analysis to the number of teacher periods a school can afford in a balanced budget.

What is the Metrics Sheet?

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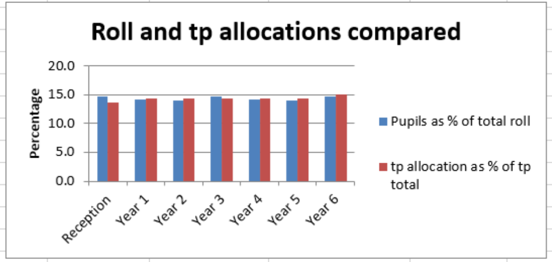
FTE teachers employed	18.0
Total teaching cost	£748,000
Total revenue expenditure	£1,633,000
Average teacher cost	£41,556
Periods in timetable cycle	10
Total Teacher period allocation	147
Teacher cost of one tp	£5,088
Revenue cost of one tp	£11,109
Average teaching load	8.2
Teacher contact ratio	0.817
Pupil Roll	410
Overall Average class size	27.89
Overall pupil to teacher ratio	22.78
Pupil roll	293



National Curriculum Year	Pupil Roll	tp Allocation	tp allocation with Whole school areas shared across y1to	Average Class Size	FTE teachers employed in the school	Teacher cost	Revenue Cost	Pupils as % of total roll	tp allocation as percentage of total tp allocation	Teacher cost as % of total teacher cost	Revenue cost as % of total revenue
Reception	60	20	20	30.00	2.45	£101,769	£222,177	14.6	13.6	13.6	13.6
Year 1	58	20	21	27.62	2.57	£106,857	£233,286	14.1	14.3	14.3	14.3
Year 2	57	20	21	27.14	2.57	£106,857	£233,286	13.9	14.3	14.3	14.3
Year 3	60	20	21	28.57	2.57	£106,857	£233,286	14.6	14.3	14.3	14.3
Year 4	58	20	21	27.62	2.57	£106,857	£233,286	14.1	14.3	14.3	14.3
Year 5	57	20	21	27.14	2.57	£106,857	£233,286	13.9	14.3	14.3	14.3
Year 6	60	20	22	27.27	2.69	£111,946	£244,395	14.6	15.0	15.0	15.0

Whole School Areas		
Learning Support	n/a	5
Intervention activity	n/a	2
Other teacher contact time	n/a	0

WHAT IS CONTACT RATIO | MODELLING CONTACT | WHAT IS AVERAGE CLASS SIZE | BONUS AND BASIC | AT COST REFERENCING | METRICS

This sheet shows a range of metrics attached to a deployment analysis.

Appendix

- **Period –** Time in the curriculum is usually measured in a unit called the period. The length of a period is usually the length of a single lesson in a school where the timetable is subdivided into a number of lessons that are the same length for all classes.
- **Cycle –** The timetable cycle is the number of periods after which the timetable and hence the curriculum structure repeats. In primary schools this will usually be either a ten period cycle where the periods are half a day long or a twenty period cycle where the periods are each a quarter of a day long.
- **Teacher Period –** Teacher time on the timetable is measured in teacher periods. One teacher period is one teacher working in a planned situation on the timetable for one period.
- **Contact time and non-contact time –** The teacher periods supplied by a teacher on the timetable are contact time. Teachers who have two types of time on their timetables which form part of the timetable cycle can be classed as either contact time or non-contact time.
- **Contact Ratio –** The contact ratio is the proportion of the cycle teachers spend in teaching contact taken as an average across all teachers. The contact ratio can be used as a comparison metric between schools as it is independent of the number of periods in the timetable cycle in a school.
- **Average Teaching Load –** This is the number of periods of contact time teachers have as an average across all staff employed as teachers.
- **Deployment Analysis –** Also called staff deployment or staff deployment analysis for historic reasons. It is usually drawn up in the form of a table listing the different areas of the school such as year groups and alongside those listing the pupil roll and the teacher time allocated on the timetable.

Appendix Continued

- **Bonus, Basic and Relative Bonus –** This can be a useful management approach but has little value for benchmarking unless different schools use exactly the same definitions. In recent times primary schools have adapted versions of the idea for primary school use.
- **Average Class Size –** This is the traditional term for the pupil to teacher ratio in the timetable. The overall class size for a school is given by:

$$Average\ Class\ Size = \frac{Pupil\ roll \times periods\ in\ the\ cycle}{teacher\ periods\ on\ the\ timetable}$$

- **The fundamental equation –** If the average teacher cost is divided by the product of the per pupil revenue and the proportion of that revenue available for teacher cost the result is the pupil to teacher ratio in a balanced budget.