Planning the curriculum for mixed-age classes using Busy Ant Maths

Long-term Planning

Using the relevant *Busy Ant Maths Curriculum Comparison Map*, decide which National Curriculum programme of study best fits your class.

Among other considerations, judgements should be based on:
- the proportion of children in the class in each of the two year groups;
- the overall general ability level of the class.

> The majority of children in my class are working at a level comparable with the Year 4 National Curriculum programme of study.

Number – Number and place value	
Year 3 National Curriculum attainment targets Pupils should be taught to:	**Year 4 National Curriculum attainment targets** Pupils should be taught to:
• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	• count in multiples of 6, 7, 9, 25 and 1000
	• find 1000 more or less than a given number
	• count backwards through 0 to include negative numbers
• recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	• recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
• compare and order numbers up to 1000	• order and compare numbers beyond 1000
• identify, represent and estimate numbers using different representations	• identify, represent and estimate numbers using different representations
• read and write numbers up to 1000 in numerals and in words	
	• round any number to the nearest 10, 100 or 1000
• solve number problems and practical problems involving these ideas	• solve number and practical problems that involve all of the above and with increasingly large positive numbers
	• read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value

Medium-term Planning

Step 1: Using the *Busy Ant Maths* online Planning Tool via Collins Connect, refer to the *Busy Ant Maths Medium-Term Plan Overview* that matches the year group identified above as being the most appropriate.
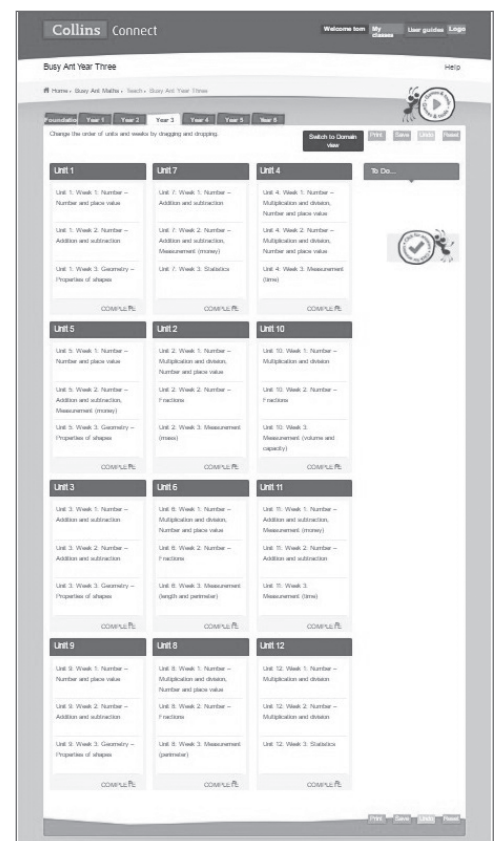
Planning the curriculum for mixed-age classes using Busy Ant Maths

Step 2a: Using the relevant *Busy Ant Maths Medium-Term Mixed-age Plan*, focus on the National Curriculum attainment targets column that matches the year group identified previously as being the most appropriate. This unit and week will be outlined in blue.

When the unit and week is the same for the other year group these attainment targets will also be outlined in blue (as in Step 2a and Step 2b). However, when there are no related attainment targets in the other year group, or the unit and week is different, the corresponding unit and week in the adjacent column is outlined in red (as in Step 2c).

Year 3		Year 4	
National Curriculum attainment targets Pupils should be taught to:		**National Curriculum attainment targets** Pupils should be taught to:	
Unit 2 Week 1	**Number – Number and place value** • find 10 more or less than a given number **Number – Multiplication and division** • recall and use multiplication and division facts for the 3 multiplication table • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Unit 2 Week 1	**Number – Number and place value** • count in multiples of 6 and 9 **Number – Multiplication and division** • recall multiplication and division facts for multiplication tables up to 12 × 12 • recognise and use factor pairs and commutativity in mental calculations

Step 2b: Refer to the National Curriculum attainment targets for the other year group on the mixed-age plan to ensure that the requirements of the National Curriculum programme of study for both year groups are being taken into consideration.

Year 3		Year 4	
National Curriculum attainment targets Pupils should be taught to:		**National Curriculum attainment targets** Pupils should be taught to:	
Unit 2 Week 1	**Number – Number and place value** • find 10 more or less than a given number **Number – Multiplication and division** • recall and use multiplication and division facts for the 3 multiplication table • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	Unit 2 Week 1	**Number – Number and place value** • count in multiples of 6 and 9 **Number – Multiplication and division** • recall multiplication and division facts for multiplication tables up to 12 × 12 • recognise and use factor pairs and commutativity in mental calculations

Planning the curriculum for mixed-age classes using Busy Ant Maths

Step 2c: Take careful note when comparing attainment targets between the two year groups for the same domain. In most cases, as in the example shown in Steps 2a and 2b above, the unit number and week of when they are taught in the *Busy Ant Maths* course are the same (i.e. Unit 2, Week 1). In such cases, both units and weeks are outlined in blue.

However, for some units and weeks, due to the different requirements in the National Curriculum programmes of study, unit numbers and weeks do not always correspond, as shown in the examples below. In these instances, the corresponding unit and week is outlined in red.

In Year 3, Geometry – Properties of shape, is taught in Unit 3, Week 3.

In Year 4, Geometry – Properties of shape, is taught in Unit 5, Week 3.

Year 3		Year 4	
National Curriculum attainment targets Pupils should be taught to:		**National Curriculum attainment targets** Pupils should be taught to:	
Unit 3 Week 3	**Geometry – Properties of shape** • recognise angles as a property of shape or a description of a turn • identify right angles, recognise that two right angles make a half-turn, three make three-quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle	Unit 5 Week 3	**Geometry – Properties of shape** • identify acute and obtuse angles and compare and order angles up to two right angles by size
Unit 2 Week 3	**Measurement (mass)** • measure, compare, add and subtract mass (kg/g)	Unit 3 Week 3	**Measurement (mass)** • convert between different units of measure • estimate, compare and calculate different measures

In Year 3, mass is taught in Unit 2, Week 3.

In Year 4, mass is taught in Unit 3, Week 3.

Step 3: Use the relevant *Busy Ant Maths Unit Matching Chart* to double-check when each of the different domains in the National Curriculum programmes of study, for both year groups, are being taught.

For some domains, especially those involving number, which are repeated, consolidated and extended throughout the year, you may wish to consult more than one of the *Busy Ant Maths* units that cover a particular domain in order to best meet the needs of your children.

Busy Ant Maths Unit Matching Chart – Years 3 and 4

National Curriculum Domain	Busy Ant Maths Year 3 Units	Busy Ant Maths Year 4 Units
Number – Number and place value	Unit 1, Week 1 Unit 5, Week 1 Unit 9, Week 1	Unit 1, Week 1 Unit 5, Week 1 Unit 9, Week 1
Number – Addition and subtraction	Unit 1, Week 2 Unit 3, Weeks 1 and 2 Unit 5, Week 2 (Inc. Measurement – money) Unit 7, Weeks 1 and 2 (Inc. Measurement – money) Unit 9, Week 2 Unit 11, Weeks 1 and 2 (Inc. Measurement – money)	Unit 1, Week 2 Unit 3, Week 1 Unit 5, Week 2 Unit 7, Weeks 1 and 2 Unit 9, Week 2 (Inc. Measurement – money) Unit 11, Week 1 (Inc. Measurement – money)
Number – Multiplication and division	Unit 2, Week 1 (Inc. Number and place value) Unit 4, Weeks 1 and 2 (Inc. Number and place value) Unit 6, Week 1 (Inc. Number and place value) Unit 8, Week 1 (Inc. Number and place value) Unit 10, Week 1 Unit 12, Weeks 1 and 2	Unit 2, Week 1 (Inc. Number and place value) Unit 4, Weeks 1 and 2 (Inc. Number and place value) Unit 6, Week 1 (Inc. Number and place value) Unit 8, Week 1 Unit 10, Week 1 Unit 12, Weeks 1 and 2

Step 4: Also refer to the Unit Overviews. These can be found at the start of each unit in the *Busy Ant Maths* Teacher's Guide and also on the Planning Tool on Collins Connect. For each of the three weeks in a *Busy Ant Maths* unit, an overview is given providing a general description of the week's work, as well as prerequisites for learning, pupil targets and guidance on assessment (both diagnostic and formative).

A chart tracks back and forward through the National Curriculum to identify the related attainment targets for the previous and subsequent year groups. The chart also identifies previous and future related *Busy Ant Maths* units in the current year, as well as the previous and subsequent year groups.

Year 3, Unit 1

Week 1: Number – Number and place value

National Curriculum attainment targets

Pupils should be taught to:
- recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
- compare and order numbers up to 1000
- read and write numbers up to 1000 in numerals
- solve number problems and practical problems involving these ideas

Pupil targets
- Read and write numbers to 1000
- Partition three-digit numbers into hundreds, tens, ones
- Explain how the digits change when counting in tens or hundreds
- Order a set of numbers to 1000
- Solve number problems and reason mathematically

Weekly overview

Children read and write numbers to 1000. They recognise the value of each digit in a two- and three-digit number and partition numbers using Base 10 material. Children compare and order three-digit numbers, focusing on the value of each digit. They solve number problems, recording their solutions systematically, explaining how they know that they have found all possible numbers.

Prerequisites for learning
- Count, read, write, compare, order and partition two-digit numbers, explaining what each digit represents

Assessment

Use the following assessments from *Busy Ant Maths Assessment Guide 3*:

2: Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

3: Compare and order numbers up to 1000

5: Read and write numbers up to 1000 in numerals and in words

6: Solve number problems and practical problems involving these ideas [i.e. Number and place value]

Tracking back and forward through the curriculum

Year 2	Year 3	Year 4
recognise the place value of each digit in a two-digit number (tens, ones)	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, ones)
compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000	order and compare numbers beyond 1000
read and write numbers to at least 100 in numerals and in words	read and write numbers up to 1000 in numerals and in words	
use place value and number facts to solve problems	solve number problems and practical problems involving these ideas	solve number and practical problems that involve all of the above and with increasingly large positive numbers

Related *Busy Ant Maths* Units				
Y2 Units		Previous Y3 Units	Future Y3 Units	Y4 Units
Unit 1, Week 1	Unit 9, Week 1		Unit 5, Week 1	Unit 1, Week 1	Unit 9, Week 1
Unit 5, Week 1			Unit 9, Week 1	Unit 5, Week 1	

Short-term Planning

Once you have decided which *Busy Ant Maths* unit you are going to use to base your week's teaching, adapt and complete the corresponding Weekly Planning Grid from the Planning Tool on Collins Connect.

Refer to the appropriate *Busy Ant Maths* resources in order to determine the week's teaching and learning opportunities.

Teacher:			Resources		Year: 3		Term:	Busy Ant Maths Unit: 1	Busy Ant Maths Week: 1	Week beginning:	
			Practical				Teach				
Lesson	Objective(s)	Vocabulary	Digital		Getting Started		Group 1	Group 2	Group 3	Plenary	Homework
							Individualised Learning				
1	• Consolidate recognising the value of each digit in a 2-digit number • Represent numbers using Base 10 material	place value; tens; ones	mini whiteboard, pen and eraser (per child) Base 10 tool		• Choose an activity from Number – Number and place value • Choose an activity from *Fluency in Number Facts: Y3/Y4 – Number and place value*		Understand the value of each digit in a 2-digit number (tens and ones). Use Base 10 to show different 2-digit numbers.			Review place value of 2-digit numbers. Start adding in hundreds.	
2	• Consolidate partitioning 2-digit numbers in varied ways • Represent numbers using Base 10 material	partition; tens; ones	mini whiteboard, pen and eraser (per child) Base 10 tool		• Choose an activity from Number – Number and place value • Choose an activity from *Fluency in Number Facts: Y3/Y4 – Number and place value*		Use Base 10 to partition 2-digit numbers in different ways.			Explaining today's learning to a partner.	Homework: Ways to Partition

Collins Busy Ant Maths — Assessment Guide 3 — Assessment at the heart and from the start — PETER CLARKE SERIES EDITOR

Busy Ant Maths — Pupil Book 3A — PETER CLARKE SERIES EDITOR

Busy Ant Maths — Homework Guide 3 — PETER CLARKE SERIES EDITOR

Collins — Busy Ant Maths — Teacher's Guide 3 — PETER CLARKE SERIES EDITOR