FOCUSMATHS

A positive approach to the Maths Curriculum

Introduction

How to get the best from Focus Maths

Purpose

Focus Maths has been designed to support teachers with the delivery of the primary mathematics curriculum.

The materials within Focus Maths help teachers to plan and deliver mathematics teaching and learning in a way which is challenging and aligned with end of year curricular expectations.

Focus Maths breaks down the mathematics curriculum so that teachers can plan for units of work in a manageable way.

The structure for each year group is identical. The following pages outline the elements of each part of the publication.

What this is and is not

Focus Maths has been structured in a way which is unambiguous for teachers to use. It is clear what it does and does not set out to achieve.

What it is	What it is not
A guide to help teachers and leaders structure progressive learning in mathematics. A breakdown of the mathematics curriculum. An approach embedded in reaching end of year expectations and deepening mathematics learning. A structured approach to support teachers with planning exciting mathematics learning.	A prescriptive guide of how to teach mathematics.

Overview of the year

Year 2: Overview of the year					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1 Number and place value	1 Multiplication & Division	3 Number and place value	6 Measures Length and mass/weight	4 Number and place value (use statistics)	9 Measures Time
2 Number and place value	1 Statistics	4 Measures Capacity and Volume	3 Addition and subtraction	4 Addition and subtraction	4 Multiplication and division
1 Measures Length & mass/weight	1 Fraction,	2 Geometry 2D and 3D shape	2 Fractions	8 Measures Capacity & Volume/ Temperature	2 Statistics, including finding the difference
1 Addition and subtraction	2 Measures Money	5 Measures Money	3 Geometry Position and Direction.	3 Fractions	10 Measures Money
2 Addition and subtraction	3 Measures Time	2 Multiplication & Division	7 Measures Time	4 Geometry Position & Direction.	
1 Geometry 2D & 3D shape	Consolidate and assess	3 Multiplication & Division	Consolidate and assess	5 Geometry 2D & 3D shape	Consolidate and assess

This page provides a suggested long term plan for mathematical constructs over the academic year. This plan is designed in a cyclical way with constructs being revisited throughout the year.

Teachers will want to make decisions about whether this long term plan meets the needs of their class.

Each term has been designed with 12 blocks. It is acknowledged that the actual school year is slightly longer and this allows teachers flexibility to revisit and extend teaching blocks as required.

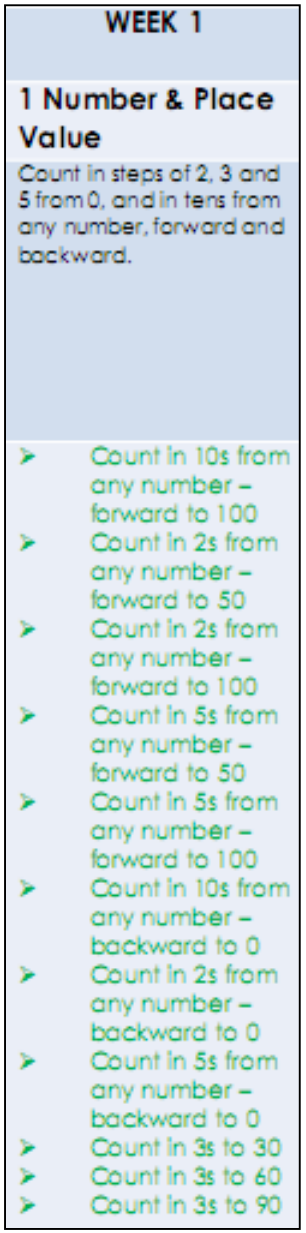
Overview for each half term

YEAR 2 : AUTUMN 1: Overview and Teaching Steps					
WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**
1 Number & Place Value	**2 Number & Place Value**	**1 Measures Length and Weight**	**1 Addition and Subtraction**	**2 Addition and Subtraction**	**1 Geometry 2D and 3D shape**
Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.	Read and write numbers to at least 100 in numerals and in words.	Compare & order lengths, mass, & record the results using >, < and =.	Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.	Add and subtract numbers mentally, including: - 2-digit numbers & ones - 2-digit numbers & tens - two 2-digit numbers - adding three 1-digit numbers	Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. Identify and describe the properties of 3D shapes, including the number of edges, vertices & faces.
➢ Count in 10s from any number – forward to 100 ➢ Count in 2s from any number – forward to 50 ➢ Count in 2s from any number – forward to 100 ➢ Count in 5s from any number – forward to 50 ➢ Count in 5s from any number – forward to 100 ➢ Count in 10s from any number – backward to 0 ➢ Count in 2s from any number – backward to 0 ➢ Count in 5s from any number – backward to 0 ➢ Count in 3s to 30 ➢ Count in 3s to 60 ➢ Count in 3s to 90	➢ Read all numbers to 50 in words ➢ Write all numbers to 50 in words ➢ Read all numbers to 100 in words ➢ Write all numbers to 100 in words	➢ Order different lengths using cm and m ➢ Order different weights using g and kg ➢ Use the symbol < > = to compare two amounts of length and weight ➢ Record information using < > =	➢ Recall addition bonds to 20 based on instant recall. ➢ Recall subtraction facts to 20 based on instant recall. ➢ Know addition facts (multiples of 10) up to 100, e.g. 60+20=80 ➢ Know subtraction facts (multiples of 10) up to 100, e.g. 90-70=20 ➢ Explain how to use bonds to ten to derive other number facts.	Mentally: ➢ Add any three 1-digit numbers ➢ Subtract any 1-digit number from a greater 1-digit number. ➢ Add a 2-digit number to 1-digit number ➢ Subtract a 1-digit number from a 2-digit number ➢ Add 10 to any 2-digit number ➢ Add any 10s number to a 2-digit number (up to 100) ➢ Subtract 10 from any 2-digit number ➢ Subtract any 10s number from a 2-digit number	➢ Identify 2D shapes by recognising number of edges and vertices (corners) they have ➢ Describe the properties of 2D shapes by describing number of edges and vertices (corners) they have ➢ Identify line of symmetry in simple shapes ➢ Make symmetrical patterns and shapes ➢ Identify 3D shapes by recognising number of edges, vertices & faces they have ➢ Describe 3D shapes by describing the number of edges, vertices & faces they have ➢ Use the terms edge, vertex/vertices and face accurately

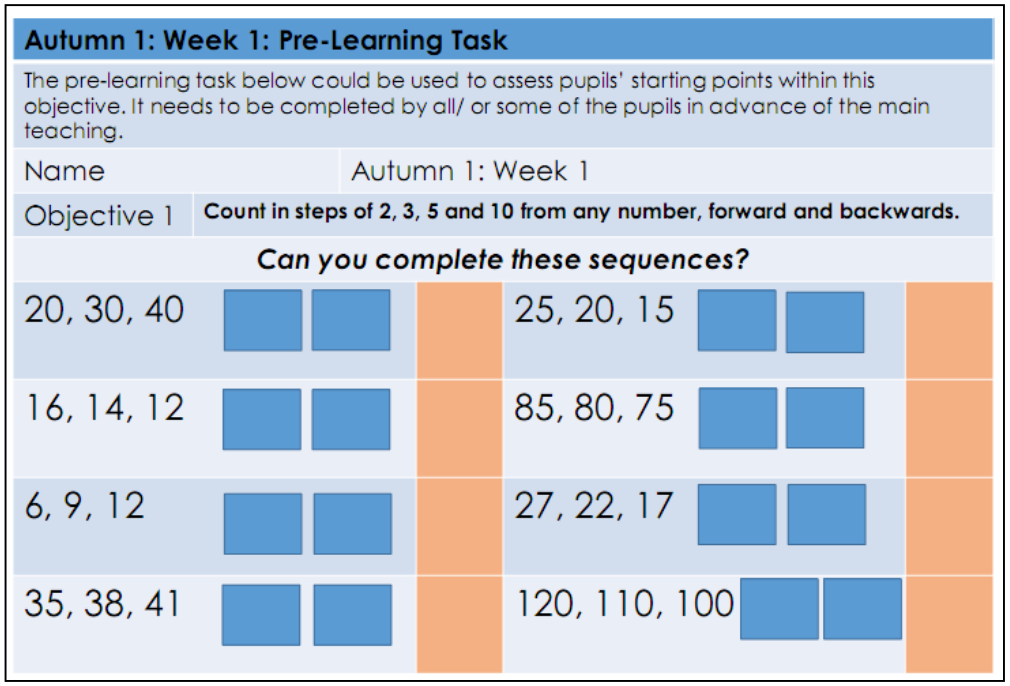
This page outlines the suggested content over a 6-week period.

For each week of mathematics learning, the page outlines:

- The construct
- The end of year expectations
- The teaching sequence (learning steps) that lead to attaining the end of year expectation



Pre-learning task



Autumn 1: Week 1: Pre-Learning Task

The pre-learning task below could be used to assess pupils' starting points within this objective. It needs to be completed by all/ or some of the pupils in advance of the main teaching.

Name	Autumn 1: Week 1
Objective 1	**Count in steps of 2, 3, 5 and 10 from any number, forward and backwards.**

Can you complete these sequences?

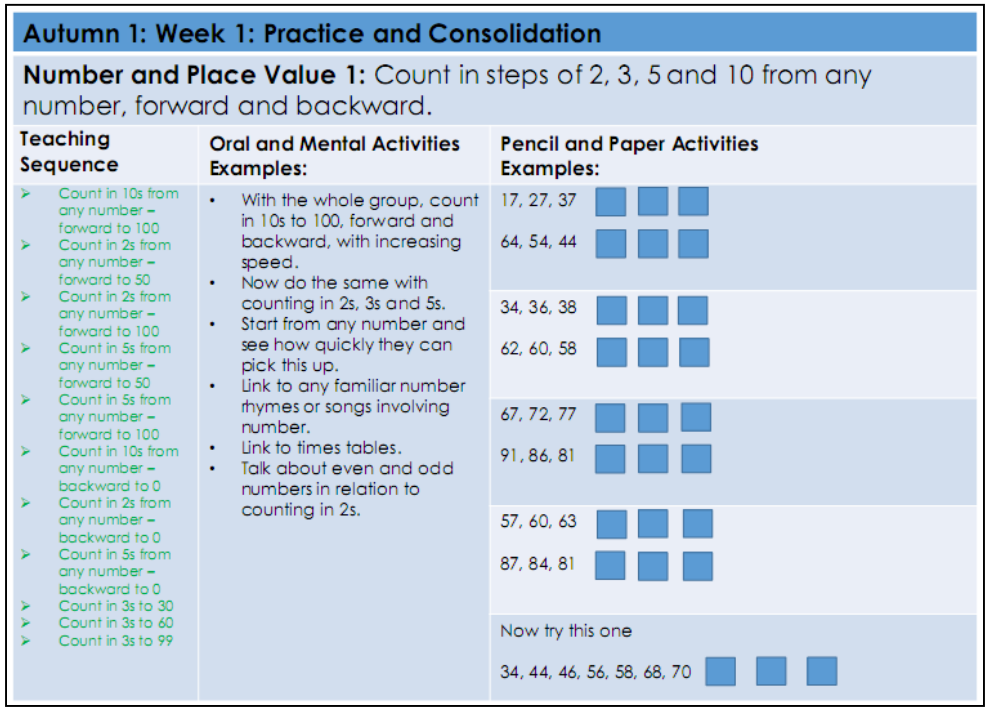
20, 30, 40		25, 20, 15	
16, 14, 12		85, 80, 75	
6, 9, 12		27, 22, 17	
35, 38, 41		120, 110, 100	

For each construct a pre-learning task is provided.

The pre-learning task has been designed to help assess whether children are in a place to access learning aligned with the end of year expectations.

These are not intended to be used with every child for every unit of work. Teachers should use based on professional judgement from ongoing teacher assessment. The pre-learning tasks can be especially useful when embarking on a new area of learning or with a child new to the class.

Practice and consolidation



Autumn 1: Week 1: Practice and Consolidation

Number and Place Value 1: Count in steps of 2, 3, 5 and 10 from any number, forward and backward.

Teaching Sequence	Oral and Mental Activities Examples:	Pencil and Paper Activities Examples:
➢ Count in 10s from any number – forward to 100 ➢ Count in 2s from any number – forward to 50 ➢ Count in 2s from any number – forward to 100 ➢ Count in 5s from any number – forward to 50 ➢ Count in 5s from any number – forward to 100 ➢ Count in 10s from any number – backward to 0 ➢ Count in 2s from any number – backward to 0 ➢ Count in 5s from any number – backward to 0 ➢ Count in 3s to 30 ➢ Count in 3s to 60 ➢ Count in 3s to 99	• With the whole group, count in 10s to 100, forward and backward, with increasing speed. • Now do the same with counting in 2s, 3s and 5s. • Start from any number and see how quickly they can pick this up. • Link to any familiar number rhymes or songs involving number. • Link to times tables. • Talk about even and odd numbers in relation to counting in 2s.	17, 27, 37 64, 54, 44 34, 36, 38 62, 60, 58 67, 72, 77 91, 86, 81 57, 60, 63 87, 84, 81 Now try this one 34, 44, 46, 56, 58, 68, 70

The teaching ideas on this page are designed to support learning pitched against the end of year expectations.

There may be pupils who can 'leap frog' this stage of learning as the teacher assesses they are already secure with the end of year expectation. In every example, there are ideas for mental and oral rehearsal alongside concrete (pencil and paper) activities.

At this stage of learning, pupils will be usually be being supported by the teacher and guided through the mathematics content in a scaffolded way. The removal of scaffolding will help teachers assess the level of independence when undertaking learning aligned with end of year expectations.

Deepening understanding

Autumn 1: Week 1: Mastering this Objective –Deeper Understanding

Number and Place Value 1: Count in steps of 2, 3, 5 and 10 from any number, forward and backward.

Teaching Sequence

- Count in 10s from any number – forward to 100
- Count in 2s from any number – forward to 50
- Count in 2s from any number – forward to 100
- Count in 5s from any number – forward to 50
- Count in 5s from any number – forward to 100
- Count in 10s from any number – backward to 0
- Count in 2s from any number – backward to 0
- Count in 5s from any number – backward to 0
- Count in 3s to 30
- Count in 3s to 60
- Count in 3s to 99

If pupils have mastered this objective they will be able to complete these activities independently:

The larger number

Consider these pairs:
Put a circle around the larger number, then put a 2, 3, 5 or 10 next to the pair to show what the difference in the two numbers is.

28 and 30
55 and 53
18 and 23
76 and 66
47 and 44
18 and 23

Moving up or down in 2s, 3s. 5s and 10s

Write the next 4 numbers in these sequences:

14, 16, 18 ☐ ☐ ☐ ☐
72, 69, 66, ☐ ☐ ☐ ☐
17, 22, 27, ☐ ☐ ☐ ☐
33, 43, 53 ☐ ☐ ☐ ☐

I start with 4, and I count on in 3s, I will say 13. Yes/ No
I start with 7, and I count in 5s, I will say 19. Yes/ No
I start with 9, and I count in 10s, I will say 39. Yes/ No
I start with 8, and I count in 3s, I will say 31. Yes/ No

What is 2, 3, 5 or 10 more than:

13, 17, 9, and 78

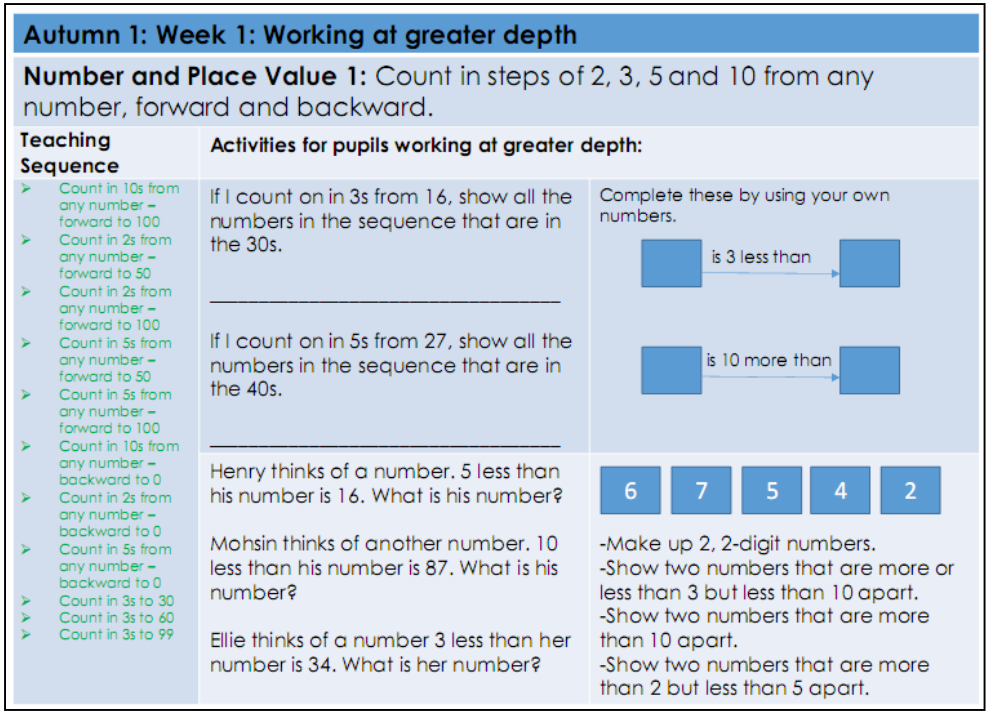
What is 2, 3, 5 or 10 less than:

34, 67, 12 and 45

The teaching ideas on this page take learning beyond evidence of attaining the end of year expectation into evidence of deeper understanding of the mathematical construct, giving particular attention to reasoning and thinking.

The examples are not exhaustive but rather suggestions for teachers when probing deeper understanding. On the other hand it could be used as a formative assessment tool.

Working at greater depth



Autumn 1: Week 1: Working at greater depth

Number and Place Value 1: Count in steps of 2, 3, 5 and 10 from any number, forward and backward.

Teaching Sequence

- Count in 10s from any number – forward to 100
- Count in 2s from any number – forward to 50
- Count in 2s from any number – forward to 100
- Count in 5s from any number – forward to 50
- Count in 5s from any number – forward to 100
- Count in 10s from any number – backward to 0
- Count in 2s from any number – backward to 0
- Count in 5s from any number – backward to 0
- Count in 3s to 30
- Count in 3s to 60
- Count in 3s to 99

Activities for pupils working at greater depth:

If I count on in 3s from 16, show all the numbers in the sequence that are in the 30s.

_____

If I count on in 5s from 27, show all the numbers in the sequence that are in the 40s.

_____

Complete these by using your own numbers.

□ is 3 less than □

□ is 10 more than □

Henry thinks of a number. 5 less than his number is 16. What is his number?

Mohsin thinks of another number. 10 less than his number is 87. What is his number?

Ellie thinks of a number 3 less than her number is 34. What is her number?

6 7 5 4 2

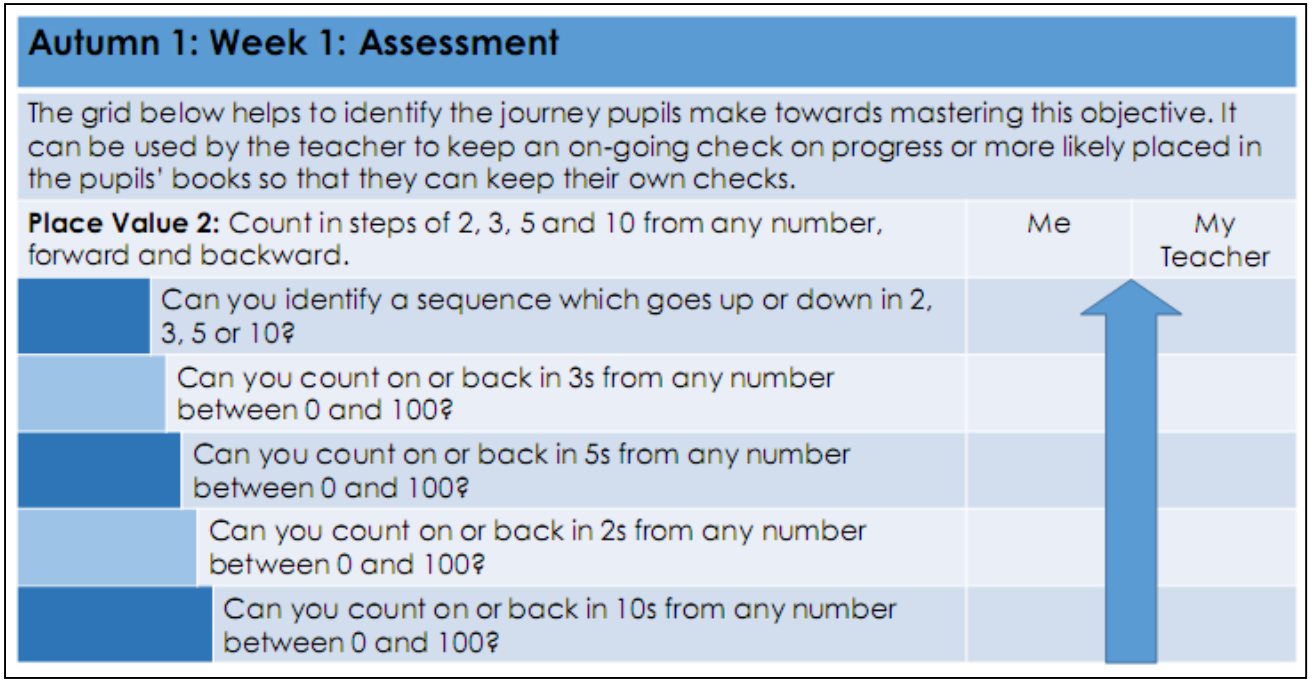
-Make up 2, 2-digit numbers.
-Show two numbers that are more or less than 3 but less than 10 apart.
-Show two numbers that are more than 10 apart.
-Show two numbers that are more than 2 but less than 5 apart.

The ideas on this page are intended to support teachers in designing mathematical learning tasks which enable pupils to work at a 'deeper' level.

Note that these are all designed to deepen understanding of the end of year expectation rather than move pupils on to learning from subsequent years.

A range of different kinds of activity are included throughout to provide variety and opportunity to assess learning in different ways.

Pupil and teacher assessment



Autumn 1: Week 1: Assessment

The grid below helps to identify the journey pupils make towards mastering this objective. It can be used by the teacher to keep an on-going check on progress or more likely placed in the pupils' books so that they can keep their own checks.

Place Value 2: Count in steps of 2, 3, 5 and 10 from any number, forward and backward.	Me	My Teacher
Can you identify a sequence which goes up or down in 2, 3, 5 or 10?		
Can you count on or back in 3s from any number between 0 and 100?		
Can you count on or back in 5s from any number between 0 and 100?		
Can you count on or back in 2s from any number between 0 and 100?		
Can you count on or back in 10s from any number between 0 and 100?		

These pages are intended to be used by pupils and teachers to assess current learning against the end of year expectation.

For each expectation, the learning steps are listed (bottom to top) in child appropriate language.

These can usefully be used as a 'before and after' assessment to demonstrate progress.

Planning v. Preparation

- One of the unique features of Focus Maths is that it potentially does the planning for the teacher, releasing them to focus on preparation.
- In this way more time and thought can be afforded to where the starting points are for pupils and ensuring differentiation is efficient and effective.
- Concepts like 'pre-teaching' and 'pre-learning' can be thought-through enabling intervention to be of maximum effectiveness.
- What you can be confident about is that Focus Maths provides you with comprehensive coverage of each National Curriculum year.
- It provides teachers with just enough guidance but leaves them very much in charge of the delivery.
- Formative assessment has been built in allowing teaching and assessment to have an even greater impact on day-to-day learning.
- Each school needs to decide whether each unit covers the planning that is required by senior leaders but school's need to be aware of making planning efficient and not to get teachers to copy chunks of the units into a pre-prepared school format when the unit as a whole could be adopted as the planning format.