Christ the King Catholic Voluntary Academy
Maths Medium Term Plan

Unit 2: Numbers to 1000 (L1-15)	**NC Objectives and Ready to Progress statements**	**Advent 1: Weeks 3-5 – Small Steps/QFLs**			**Start Date: 18.09.23 (3 weeks)**
Prior Learning: - 2NPV–1 Place value in two-digit numbers: recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. - 2NPV–2 Two-digit numbers in the linear number system (number line): reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10. - **Year 2: 10x tables, 2x tables, 5x tables**	• 3NPV–1 Equivalence of 10 hundreds and 1 thousand: know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10. • 3NPV–2 Place value in three-digit numbers: recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. • 3NPV–3 Three-digit numbers in the linear number system (number line): reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10. • 3NPV–4 Reading scales with 2, 4, 5 or 10 intervals: divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. • 3NF–3 Scaling number facts by 10: apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example: 8 6 14 + = and 14 6 8 – = so 80 60 140 + = and 140 60 8 • 3AS–1 Calculate complements to 100	**Week 1** **Pre unit assessment** **Lesson 1:** Can I explain which equal groups 100 is composed of? (1) 100 square grid per child Base 10 dienes Metre sticks Printed sheets - holepunched **Lesson 2:** Can I explain what other equal groups 100 is composed of? (2) (20s, 25s & 50s) 100 grid square Dienes Whiteboards and pens – show me technique Fake coins? 10s, 20s, 50s Printing – holepunched *Do lots of choral chanting counting in 20s, 25s & 50s. Display these as number tracks until the class become confident in them, starting from anywhere in the sequence, forwards or backwards. Practice this frequently e.g. whilst lining up.*	**Week 2** **Lesson 6:** Can I use known facts to find complements to 100 accurately and efficiently? Printing – holepunched Laminated 100 squares Dienes – *get the children to follow along with the concrete resources in time with your on-screen animations* **Lesson 7:** Can I represent three-digit multiples of 10 using their numerals and names? Dienes Printing – holepunched Different representations printing – 1 each Place value chart up to 100s – laminated ideally Dienes Base 10 – 10s and 100s	**Week 3** **Lesson 11:** Can I count across and on from 100? SHORT LESSON – verbal counting, no recording in books *Print a 1-200 counting grid per child* *Use coins (£1 and 1p only) and dienes to aid verbal counting if needed* **Lesson 12:** Can I represent a three-digit number up to 199 in different ways? *Children will represent numbers in bar models, part whole models, number lines etc, and need to draw these themselves into their books. Model this under the visualiser first.* *Printing* *Rulers for accurate representations*	**Vocabulary** Compose = make Equal Intervals (breaks on number line) Complement (two numbers that go together to make any power of 10 – 10, 100, 1000 etc) Addend (numbers in addition) Total / sum (addition answer) Minuend (large number) Subtrahend (smaller number that you subtract from the larger number) Difference (answer in subtraction) Hundreds/tens/ones Partitioning Unitising (seeing a number as their unit value, e.g. 120 is 12 tens)

	Possible misconceptions • Avoid statements such as '100 has no tens or ones', since 100 is composed of ten 10s or 100 ones. • When finding complements to 100 (lessons 5 & 6), children can often forget that the ones digits make a 10, and so they will add in an extra 10 in the 10s digit. This leaves them with an 'extra 10' – remind them that the 10s digits only need to total 9 tens (90) because the ones will make a 10 on their own. • $70 + 50 = 112$ ✗ They can see the answer is *'bigger than one hundred'* and can see the *'twelve'* but aren't sure how to bring those concepts together. Previous work on unitising in tens (for example, associating 12 tens with 120) should help children to avoid this type of mistake, but you will still need to look out for it. • Gattegno chart. As before, when referring to place value, avoid asking questions such as *'How many tens are there in one hundred-and-four?'* (for detailed explanation and exemplar questions see step *3:4*). Look out for children who write *'10024'* or *'1004'* to represent 124 or 104 respectively; work with them to link the physical representations to the place-value chart and emphasize the fact that all 'hundreds numbers' have three digits.	**Lesson 3:** Can I use known facts to find multiples of 10 that compose 100? (bonds to 10) Multi-link cubes Dienes base 10 Blank bar model templates (ideally laminated) Whiteboards and pens Printing and holepunched	**Lesson 8:** Can I use place value knowledge to write addition and subtraction equations? Dienes Printing – holepunched	**Lesson 13:** Can I bridge 100 by adding or subtracting a single-digit number? *NO PRINTING FOR THIS LESSON – they should copy the equations down from the board and complete neatly on their page.* 100 squares laminated Dienes if needed	
		Lesson 4: Can I use known facts to identify one-digit and two-digit numbers that compose 100? Optional – laminated bar model templates Optional – number lines (blank) Optional – 100 squares Printing - holepunched	**Lesson 9:** Can I bridge 100 by adding or subtracting multiples of 10? Dienes Printing - holepunched	**Lesson 14:** Can I find ten more or ten less than a given number? *Review straight into books* 200 squares from previous lessons printing	
		Lesson 5: Can I use known facts to find the correct complements to 100? Whiteboards Printing - holepunched	**Lesson 10:** Can I use my knowledge of addition and subtraction to cross the hundreds boundary to solve problems? Dienes for scaffolding if needed Printing - holepunched	**Lesson 15:** Can I add or subtract across the 100s boundary from any two-digit number in tens? *The key idea is that the difference (minuend minus subtrahend) is the same whichever strategy they use.* **End of unit assessment**	