BIE Suggested Grade 4 Math Scope and Sequence Interim 1

Unit 1: Place Value Foundations (4 weeks)

4.NBT.A.1 – Recognize that a digit in one place represents ten times what it represents in the place to its right.

4.NBT.A.2 – Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers.

4.NBT.A.3 – Use place value understanding to round multi-digit whole numbers to any place.

Developmental Focus:

Concrete (base-ten blocks, place value charts) → Representational (expanded form, number lines) → Abstract (symbolic notation).

Compare numbers with real-world contexts (population, distances, money).

Unit 2: Multi-Digit Operations (5 weeks)

4.NBT.B.4 – Fluently add and subtract multi-digit whole numbers using the standard algorithm.

4.NBT.B.6 – Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors (using strategies based on place value, properties of operations, and relationship between multiplication and division).

Developmental Focus:

Start with estimation and mental math strategies before the standard algorithm.

Use area models, partial quotients, and repeated subtraction to build division understanding.

Emphasize real-world contexts for division with remainders.

Unit 3: Factors, Multiples, and Number Theory (3 weeks)

4.OA.B.4 – Find all factor pairs for a whole number, recognize multiples, determine prime and composite numbers.

Developmental Focus:

Build fluency with multiplication facts → apply to factorization.

Visual supports (arrays, rectangular area models) to identify factors and multiples.

Introduce prime/composite with hands-on exploration.

Unit 4: Fractions – Equivalence and Comparison (4 weeks)

4.NF.A.1 – Explain why fractions are equivalent using visual fraction models and number lines.

4.NF.A.2 – Compare two fractions with different numerators/denominators using benchmarks and visual models.

Developmental Focus:

Use area models, strips, and number lines.

Anchor comparisons with ½, 0, and 1.

Transition from models to reasoning with denominators and numerators.

Unit 5: Multiplicative and Additive Problem Solving (5 weeks)

4.OA.A.1 – Interpret multiplication equations as comparisons (e.g., 35 = 5 × 7 means 35 is 5 times as many as 7).

4.OA.A.2 – Multiply or divide to solve word problems involving multiplicative comparison.

4.OA.A.3 – Solve multi-step word problems with the four operations, including interpreting remainders.

Developmental Focus:

Begin with visual bar models/tape diagrams.

Connect multiplication as comparison to real-world scenarios (e.g., "4 times as many apples").

Scaffold multi-step problems with graphic organizers.

Unit 6: Patterns and Problem Solving (2 weeks)

4.OA.C.5 – Generate and analyze patterns using given rules. Identify features not explicitly stated.

Developmental Focus:

Start with simple repeating patterns, then extend to number patterns with operations.

Encourage students to verbalize and write rules.

Explore input-output tables and real-world patterns (growth, time, money).