COWICHAN VALLEY School District

Grade Five – Suggested Math Instructional Resources

Access Digital copy here.

Number Sense

(Numbers describe quantities that can be represented by equivalent fractions.)

Curricular Content	Curricular Competencies (The student can…)	Online Resources	Print Resources (all are available in the DLC or in schools)
Place value understanding to 1 000 000	Represent and decompose numbers to 1 000 000. Count in various ways (by various multiples, starting points, increasing/decreasing) with numbers up to 1 000 000. Compare and order numbers to 1 000 000 demonstrating understanding of place value. Begin to use greater than and less than symbols.	Number Concepts Grades 3 - 5 Hot Lunch Day	*Place Value in Intermediate* (Fullerton, 2017), • beginning on p.182 *All Hands on Deck* (Felling, 2022) • Rock 'N Roll (p. 92-97) • Switch It (p.100-102) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • pp. 224-229
Fraction and decimal concepts	Represent equivalent fractions using concrete materials, pictures and symbols. Compare and order fractions (within 0 -1) and decimal numbers (focus on hundredths).	Fraction Strip Exploration Decimal Place value tents Fractions with Cuisenaire Rods Clothesline activities Clothesline Intro to Class Fraction wars	*Proportional Reasoning* (Fullerton, 2019) • Creating Equivalent Fractions, Expanding and Simplifying Fractions with Cuisenaire Rods (pp. 105-106) • From Cuisenaire Rods to Number Lines Representing Fractions with a Linear Model (pp. 95-97) *All Hands on Deck* (Felling, 2022) • What's Your Number? (pp. 80-83)

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Curricular Content	Curricular Competencies (The student can…)	Online Resources	Print Resources (all are available in the DLC or in schools)
		Fraction Wars Cards	• Rock 'N Roll II (p. 92-97) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • p. 354-366 • p. 412-414 *Number Talks – Fractions, Decimals, and Percentages* (Parrish, 2016) • Chapter 3 (pp. 63-106)

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Computational Fluency

(Computational fluency and flexibility with numbers extend to operations with larger (multi-digit) numbers.)

Curricular Content	Curricular Competencies (The student can…)	Online Resources	Print Resources (all are available in the DLC or in schools)
Fluency with addition and subtraction facts and multiplication (and related division) facts	Demonstrate **fact fluency** with addition and subtraction facts to 20 (with efficiency, accuracy and flexibility). Demonstrate fact fluency with 2x, 3x, 4x, 5x and 10x multiplication facts to 100, and use known facts to derive other multiples and quotients (division questions).	Facts fluency resources and strategies Adding whole number Desmos activity 1-2 Nim Rich Task	*Mastering the Facts Multiplication* (Fullerton, 2020), • The 2's (pp. 15-19) • The 3's (pp. 25-29) • The 4's (pp. 20-24) • The 10's (pp. 35-38) • The 5's (pp. 40-44) • The Ugly Ones (pp. 49-53) *All Hands on Deck* (Felling, 2022) • Multiplication Tic Tac Toe (pp. 48-49) • "24" (p. 157) *Number Talks –Whole Number Computation* (Parrish, 2014) • Multiplication and Division Strategies (pp. 231-261) • Multiplication and Division Number Talks (pp. 262-299) • What Does a Number Talk Look Like at My Grade Level? (pp. 324-330) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • Chapter 9 (pp.174-201)

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Curricular Content	Curricular Competencies (The student can…)	Online Resources	Print Resources (all are available in the DLC or in schools)
Addition and subtraction to/within 1 000 000	Add and subtract numbers within 1 000 000 using **decomposing**, compensating and regrouping strategies.		*All Hands on Deck* (Felling, 2020) • Break 100 (pp. 113-114) *Number Talks – Whole Number Computation* (Parrish, 2014) • Addition Subtraction Strategies (pp. 157-181) • Addition Subtraction Number Talks (pp. 182-229) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • Chapter 11 (pp.230-266)
Addition and subtraction with decimal numbers to thousandths	Add and subtract decimal numbers to the thousandths using whole number strategies such as decomposing by place value, compensating, finding the difference, and regrouping.	Math Antics - Decimal Arithmetic(first 3:40) Addition and subtraction: Mental calculations - addition [FREE RESOURCE] Hot Lunch Day	*Place Value in Intermediate* (Fullerton, 2017) • Beginning on p. 183 and 211 *Elementary and Middle School Mathematics* (Van de Walle, 2022) • pp. 415-417 *Number Talks – Fractions, Decimals, and Percentages* (Parrish, 2016) • Chapter 10 (pp. 333-367) *Good Questions 5-8* (Fullerton, 2018)
Multiplication with three digit numbers	Multiply numbers with three-digits, using more than one strategy such decomposing, regrouping, compensating, distributive property, commutative property, repeated addition.	Multiplication Properties | Commutative, Associative, Identity, & Zero Math Antics - Multi-Digit Multiplication Box Method Multiplication | 3-Digits x 1-Digit Lattice Method Multiplication	*Mastering the Facts Multiplication* (Fullerton, 2020) • Multiplying the Bigger Ones-Decomposing (pp. 118-120) • Multiplying the Bigger Ones-Distributive Property (pp. 121-123)

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Curricular Content	Curricular Competencies (The student can…)	Online Resources	Print Resources (all are available in the DLC or in schools)
			• Multiplying the Bigger Ones - Area Models & the Distributive Property (pp. 124-133) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • Chapter 12 (pp. 267-276) *Multiplicative Thinking* (Fullerton, 2015) • pp. 118 - 133
One-step equations with variables	Use reasoning to verbally explain and represent with numbers and symbols, the process of solving for an unknown (x). Solve equations with the unknown numbers such as: • 200 000 x 30 = x • 4.50 + x = 7.00 • x − 2.750 = 5.000 • x = 600 000 ÷ 2 000 Using strategies such as using a balance, using related operations and mental math, rewriting an equation, using an open number line, using whole number strategies and connecting them to decimal numbers	Algebra Basics: What Is Algebra? - Math Antics (first part of video only) Algebra Basics: Solving Basic Equations Part 1 - Math Antics Solving One-Step Equations Using a Pan-Balance Pan Balance – Shapes How much & how do I know?	*Algebraic Thinking* (Fullerton, 2020) • What's missing - Solving for Unknowns (p. 78) • Balanced Equations (p. 97) *Elementary and Middle School Mathematics* (Van de Walle, 2022) • p. 319

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General Resources

General Strategies and Routines	Which One Doesn't Belong Dot Card and Number Talks Number Talk Images Coast Metro Math Project Interactive Simulations	Esti-Mysteries The Estimation Clipboard Cube Conversations Estimation Math Applications	Building Thinking Classrooms Puzzles, Problems and Tasks
Building our Understanding	Number Talks and Number strings Progression of Multiplication Progression of Division	Coast Metro Math Project Progression of Fractions Concreteness Fading	Spiraling the Curriculum Week of Inspirational Math Building Math Fact Fluency
Classroom Assessment	Coast Metro Math Project	Island Numeracy Assessment	Assessing Curricular Competencies
Indigenous Connections	Coast Metro Math Project	When Seagull Stole the Sun	BC Numeracy Network
Planning	BC Numeracy Network Math Year Plan For K-5	Critical Concepts Map	Planning - Year, Week, Day

This document intentionally focusses on number sense and computational fluency as these are foundational skills that can be spiraled throughout the rest of the content standards while being grounded in the curricular competencies.

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