# Grade Two - Suggested Math Instructional Resources 

Number Sense

(Numbers to 100 represent quantities that can be decomposed into 10 s and 1s.)

| Curricular Content | Curricular Competencies (The student can...) | Online Resources | Print Resources <br> (all are available in the DLC or in schools) |
| :---: | :---: | :---: | :---: |
| Place value understanding to 100 | Develop number sense <br> Represent and decompose numbers to 100 . <br> Count in various ways (by $2 \mathrm{~s}, 5 \mathrm{~s}, 10 \mathrm{~s}$ from different starting points, ascending and descending). <br> Compare and order numbers to 100 (put numbers in sequence, be able to tell what is 2 more/less, 5 more/less, ten more/less than a number). | Number Concepts Grades 3-5 <br> Composing \& Decomposing \#s to 100 <br> Counting Collections - Meaningful Math Moments <br> Counting Collections - Math 4 Love <br> Maze Hundreds Chart 20 Days of Number Sense Subitizing Slides 2nd Grade Number Sense Routines Games: <br> - Pig <br> - Fill The Stairs <br> - Number concepts to 100 and 1000 | Messy Maths (Robertson, 2016) Chapters 3 and 4 <br> - Pocket Number Lines (p. 50) <br> - The Number Sorting Factory (p. 65) <br> Place Value in Primary (Fullerton, 2016) <br> - Counting Collections to 100 (pp. 129131) Representing Numbers to 100 (pp. 136-140) <br> - Comparing and Ordering Numbers to 100 (pp. 144-148) <br> Sums \& Differences: Grade 2 \& 3 (Fullerton, 2014) <br> - Modeling Bigger Numbers Using Place Value (pp. 13-31) <br> Shuffling into Math (Felling, 2022) <br> - Quick Math Warm Ups (p. 116) <br> - Next in Line to 100 (pp. 131-134) <br> - Betweeners (pp. 137-139) |



| Cowichan valley <br> Curricular <br> Content |
| :--- |
| Curricular Competencies <br> (The student can...) |


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June 2023 v 1.0 Grade Two

## Computational Fluency

(Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.)

| Curricular Content | Curricular Competencies (The student can...) | Online Resources | Print Resources <br> (all are available in the DLC or in schools) |
| :---: | :---: | :---: | :---: |
| Developing fluency with addition and subtraction facts to 20 | Developing fluency (accuracy, efficiency and flexibility) through strategies for addition and subtraction facts to 20 - making and bridging 10 , decomposing, using doubles and near doubles, counting on, counting up to find the difference, thinking about adding to subtract). | Building Fact Fluency - Lemonade (doubles) <br> Building Fact Fluency Making 10s <br> Splat! <br> Cuisenaire Rods for $\mathrm{K} / 1 / 2$ <br> Flower Petal Puzzle <br> 3 Act Tasks: <br> - Humpty Dumpty <br> - Bag-o-chips <br> 迬 Games: <br> - Sum What Math Game <br> - Face Off <br> - How Many are Hiding <br> - Lucky 13 <br> Lesson Ideas for Number Sense, Operations and Geometry | Shuffling into Math (Felling, 2022) <br> - Subtraction Horse Race (pp. 48-51) <br> - $\quad$ Salute (pp. 67-70) <br> Messy Maths (Robertson, 2016) Chapters 3 and 4 <br> - Subtraction (pp. 75-76) <br> - The Game of Nim (pp. 76-77) <br> - Add or Subtract (p. 74) <br> Elementary and Middle School Mathematics (Van de Walle, 2022) <br> - Chapter 8 (pp. 146-156) <br> - Chapter 9 (pp. 174-189) <br> Number Talks - Whole Number Computation (Parrish, 2014) <br> - pp. 88-96 <br> Mastering the Facts: Addition (Fullerton, 2020) |
| Addition and subtraction of two-digit numbers | Add and subtract two-digit numbers using decomposing, compensating, finding the difference and regrouping strategies and using tools such as ten frames, hundred charts and number lines. | 3 Act Tasks: <br> - Bright Idea <br> - The Juggler | Shuffling into Math (Felling, 2022) <br> - Addition Baseball (pp. 91-95) <br> - Subtraction Baseball (pp. 96-102) <br> - Regrouping Scramble (pp. 103-104) |
| video <br> teacher backgrounder <br> learning activity <br> strategies \& routines <br> device required <br> Adapted from Richmond School District and Nanaimo Ladysmith Public Schools (with permission and gratitude) <br> June 2023 v 1.0 Grade Two |  |  |  |


| Curricular Content | Curricular Competencies (The student can...) | Online Resources | Print Resources (all are available in the DLC or in schools) |
| :---: | :---: | :---: | :---: |
|  |  |  | Sums and Differences: Grades 1 \& 2 (Fullerton, 2013) <br> - Adding 10's and 1's to Bigger Numbers with No Bridging (pp. 51-61) <br> - Adding 10's and 1's to Bigger Numbers With Bridging (pp. 62-80) <br> - Subtracting 10's and 1's from Bigger Numbers with No Bridging (pp. 109119) <br> - Subtracting 10's and 1's from Bigger Numbers with Bridging (pp. 120-142) <br> Number Talks - Whole Number Computation (Parrish, 2014) <br> - pp. 119-154 <br> Elementary and Middle School Mathematics (Van de Walle, 2022) <br> - Chapter 8 (pp. 147-158) <br> Good Questions: 2-4 (Fullerton, 2028) |
| Change in quantity to 20 and within 100, concretely, verbally and using symbols | Use materials such as blocks, ten frames or hundred charts to solve addition and subtraction equations with a missing part, for example $30+?=55$. <br> Verbally explain what they need to do to change 9 to 17 or 19 to 4 . Record these changes using numbers and symbols such as $9+n=17$ or $19-\ldots=4$. | 図 Games: <br> - Addition Scale <br> - Missing Addend <br> - Missing Subtrahend | Place Value in Primary (Fullerton, 2016) <br> - Estimating Numbers to 10: Missing Parts and Open Sentences (pp. 149153) |

## General Resources

| General Strategies and Routines | Which One Doesn＇t Belong <br> Dot Card and Number Talks <br> Number Talk Images <br> Coast Metro Math Project | Esti－Mysteries <br> The Estimation Clipboard <br> Cube Conversations <br> Estimation <br> Math Applications | Supporting Numeracy in Early Years <br> Week of Inspirational Math <br> Building Thinking Classrooms <br> Puzzles，Problems and Tasks |
| :---: | :---: | :---: | :---: |
| Building Our Understanding | Three Act Tasks Explained <br> Progression of Early Number and Counting | Coast Metro Math Project <br> Progression of Addition and Subtraction | Spiraling the Curriculum <br> Concreteness Fading <br> Building Math Fact Fluency |
| Classroom Assessment | O－：Coast Metro Math Project | O－：Assessing Curricular Competencies |  |
| Indigenous Connections |  | 娄 When Seagull Stole the Sun | O－E BC Numeracy Network |
| Planning | BC Numeracy Network <br> 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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video
teacher backgrounder
図 learning activity
國 printable
2 strategies \＆routines
盈 device required
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