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| **MATH** **Grade 5**  **CURRIC-ULAR**  **COMP-ETENCES**  **(DO)** | | | **BIG IDEAS (UNDERSTAND)** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Number**  Numbers describe quantities that can be represented by equivalent fractions. | | | | | | | | | | **Developing Computational Fluency**  Computational fluency and flexibility with numbers extend to operations with larger (multi-digit) numbers. | | | | | | | | | **Patterns and Relations**  Identified regularities in number patterns can be expressed in tables. | | **Spatial Sense**  Closed shapes have area and perimeter that can be described, measured, and compared. | | | | | **Statistics and**  **Probability** Data represented in graphs can be used to show many-to-one correspondence. | |
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| number concepts to  1 000 000 | | Equiv-alent frac-tions | | decimals to thousandths | | whole-numbers, fractions, and decimals benchmarks | | addition and subtraction of decimals to thousandths | | addition and Subtraction facts to  20 (extending  computational fluency) | | addition and subtraction of whole numbers to  1 000 000 | | multiplication and division to 3 digits including division with remainders | | multiplication and division facts to 100 (emerging computational fluency). | | financial literacy: monetary calculations, including making change with amounts to 1000 dollars  and developing simple financial plans. | rules for increasing and decreasing patterns with words, numbers, symbols, and variables. | one step equations with variables | area measure-ment of squares and rectangles | relationship between area and perimeter | classification of prisms and pyramids | Single transfor-mations. | duration, using measurement of time | one-to-one correspondence and many-to- one correspondence using double bar graphs. | probability experiments focusing on independence. |
|  | | | -count-ing multiples  -flexible count-ing strategies  -whole number bench-marks  comparing and ordering numbers  estimate large quantities  - place value 100 000s, 10 000s, 1 00s, 100s, 10s, 1s  - understanding the relationship between digit places and their place value to 1 000 000 | |  | |  | | -two equivalent fractions are two ways to represent the same amount (having the same whole)  -comparing and ordering of fractions and decimals  -additional and subtraction of decimals to thousandths  -estimating decimal sums and differences  -estimating fractions with benchmarks (e.g. zero,  half, whole) | | -estimating sums and differences  -using visual models such as base 10 blocks, place value mats, grid paper, and number lines  -using additional and subtraction in real-life contexts and problem-based situations  -whole-class number talks | | -e.g. for 800 + 700, you can annex the zeros and use the knowledge of 8 + 7 to find the total | | -using flexible computational strategies involving taking apart (e.g. decomposing using friendly numbers and compensating and combining numbers in a variety of ways)  -estimating sums and differences to 10 000  -using addition and subtraction in real-life contexts and problem-based situations  -whole-class number talks | | -understanding the relationships between multiplication and division, multiplication and addition, division and subtraction  -decomposing, distributive principle, commutative principle, repeated addition, repeated subtraction  -using addition and subtraction in real-life contexts and problem-based situations  -whole-class number talks | | -provide opportunities for concrete and pictorial representations  -use games  -look for patterns such as a hundred chart  -skip counting  -repeated addition  -should be able to recall multiplication facts of 2s, 3s, 4s, 5s, 10s  -doubling and halving, annexing and disruptive property  -developing computational fluency with facts to 100 | | -making money calculations, including making change and decimal notation to $1000 in real-life contexts and problem-based situations  -counting up, counting back, decomposing to calculate totals and make change  -making simple financial plans to meet a financial goal  -developing a budget that takes into account income and expenses |  | -solving one-step equations with a variable  expressing a given problem as an equation using symbols  -e.g. 4+x=15 |  | -measuring area of squares and rectangles using tiles, geoboards, grid paper  -invest-igating perimeter and area and how they are related to but not dependent on each other | -invest-igating 3D objects and 2D shapes, based on multiple attributes  -describing and sorting quadrilateral  -describing and constructing rectangular and triangular prisms  -identifying prisms in the environment | slide/translation, flip/reflection, turn/rotation  -using concrete materials with a focus on the motion of transformations | understanding elapsed time and duration  -applying concepts of time in real-life contexts and problem-based situations | -on a bar graph, one square may represent five cookies or one symbol can represent a group or value | -predicting outcomes of independent events (e.g. when you spin using one spinner and it lands on a single colour)  -predicting single outcomes  -using spinners, rolling dice, pulling objects out of a bag |
| Reasoning and Analyzing | Use reasoning to explore and make connections |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Estimate reasonably |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Develop mental math strategies and abilities to make sense of quantities. |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Use technology to explore mathematics |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Model mathematics in contextualized experiences |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Understanding and Solving | Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Visualize to explore mathematical concepts |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
|  | Develop and use multiple strategies to engage in problem solving |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Engage in problem-solving experiences that are connected to place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
|  | Communicate mathematical thinking in many ways |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Communicating and Representing | Use mathematical vocabulary and language to contribute to mathematical discussions |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Explain and justify mathematical ideas and decisions |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Represent mathematical ideas in concrete, pictorial, and symbolic forms |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
|  | Reflect on mathematical thinking |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Connecting and Reflecting | Connect mathematical concepts to each other and to other areas and personal interests |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |
| Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |  |  |  |  |  |  |  |  |  |