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| **MATH** **Grade 3** | |  | | | | | | | | | | | | | | | | | | | | |
| **CURRICULAR COMPETENCES**  **(DO)** | | **BIG IDEAS (UNDERSTAND)** | | | | | | | | | | | | | | | | | | | | |
| **Number**  Fractions are a type of number that can represent quantities. | | **Developing Computational Fluency**  Development of computational fluency in addition, subtraction, multiplication, and division of whole numbers requires flexible decomposing and composing. | | | | **Patterns and Relations**  Regular increases and decreases in patterns can be identified and used to make generalizations. | | | | | **Spatial Sense**  Standard units are used to describe, measure, and compare attributes of objects’ shapes. | | | | | **Statistics and Probability**  The likelihood of possible outcomes can be examined, compared, and interpreted. | | | | |
| **CONTENT (KNOW)** | | | | | | | | | | | | | | | | | | | | |
| number concepts to 1000 | fraction concepts | addition and Subtraction facts to 20 | addition and subtraction to 1000 | multipli-cation and division concepts | financial literacy— fluency with coins and bills to 100 dollars, and earning and payment | increasing and decreasing patterns | | pattern rules using words and numbers, based on concrete experiences | | 1-step addition and subtraction equations with an unknown number | measurement using standard units (linear, mass, and capacity) | | time concepts | | construc-tion of 3D shapes | one-to-one correspondence with bar graphs, pictographs, charts, and tables | likelihood of simulated events | | |
|  | | - Skip counting starting at any starting point (increasing and decreasing) /related to multiplications  -comparing and ordering numbers  -estimating quantities  -place value 1s,10s, 100s  - 0 as a place order  - place-value counting pattern (by 1,10, 100)  - understand relationship between digit places and value  (the digit 4 in 342 has the value of 40 or 4 tens) | Fractions represent amount and quantities  -equal shares or equal-sized portions of a whole or unit  - explore and create fractions | - add and subtract numbers to 20  -decomposing, making and bridging ten, related doubles, and commutative property  - addition and subtraction are related  -recall addition facts to 20 | - decomposing and compensating numbers  -combine numbers  -estimate sums and differences to 1000  -real life contexts and problem-based situations | -multiplication (groups of, arrays, repeated addition)  -division (sharing, grouping, repeated subtraction)  -multiplication and division are related  - connect to skip-counting  -games  -concrete pictorial representation  -looking for patterns, such as in a 100 chart  (memorization not intended for this grade) | -counting mixed combinations of coins and bills up to $100  -fluency with coins and bills to 100 dollars, and earning and payment  - payments can be made in different ways (e.g. cash, cheques, credit, electronic transitions, goods and services)  - ways to earn money | - concrete, pictorial and numerical representation  -increase and decrease patterns (ex: doubling, adding 2) | | - describe the pattern rule using words and numbers | | - n+15=20  - 12+n=20  - 6+13=n  - investigate even and odd numbers | | - cm, m, km  -circumference, perimeter, area  - capacity: L, ml  - mass: gram, Kg  - estimate measurements (if a cup holds 100 ml, about how much does this jug hold?) | -second, minute, hour, day, week, month, year  -relationship between units of time  (telling time is not expected at this level) | | -describe and attributes of 3D shapes  -identifying faces, number of edges and vertices (e.g. construction of nets and skeletons)  -identify and compare  - cube, sphere, prism, cylinder | -collect data, creating a graph  -describe, compare and discuss results  - choose a suitable representation | - use: certain, uncertain, more, less, equality likely  - developing an understanding of chance (tossing a coin, head or tail, drawing from a bag, using spinners) | |
| Reasoning and Analyzing | Estimate reasonably. |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  |
| Develop mental math strategies and abilities to make sense of quantities. |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  |
| Use reasoning to explore and make connections. |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  | |
| 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 (concretely, pictorially, symbolically, and by using spoken or written language to express, describe, explain, and apply mathematical ideas). |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  |
| 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 of personal interest (e.g., in daily activities, local and traditional practices, the environment, popular media and news events, cross-curricular integration). |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  |
| Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts |  |  |  |  |  |  |  |  | |  | | |  | |  |  |  |  |