|  |  |
| --- | --- |
| **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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |