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| **MATH** **Grade 1** |  |
| **CURRICULAR COMPETENCES** **(DO)** | **BIG IDEAS (UNDERSTAND)** |
| **Number**Number represents and describes quantity: Numbers to 20 can be decomposed into 10s and 1s. | **Developing Computational Fluency**Addition and subtraction with numbers to 10 can be modelled concretely, pictorially, and symbolically to develop computational fluency. | **Patterns and Relations**Repeating elements in patterns can be identified. | **Spatial Sense**Objects and shapes have attributes that can be described, measured, and compared. | **Statistics and Probability**Concrete graphs help us to compare and interpret data and show one-to-one correspondence. |
| **CONTENT (KNOW)** |
| number concepts to 20 | ways to make 10 | addition and subtraction to 20 | change in quantity to 20 concretely and verbally | financial literacy: values of coins and monetary exchanges | meaning of equality and inequality | repeating patterns with multiple elements and attributes. | comparison of2D shapes and3D objects | direct measurem-ent with non-standard units | concrete graphs using one-to-one correspo-ndence | likelihood of familiar life events using comparative language |
|  | -counting on and counting back-skip by 2 and 5-sequencing numbers to 20-comparing and ordering numbers to 20-numbers to 20 can be arranged and recognized-subtilizing-base 10-10 and some more |    | -decomposing 20 into parts-mental math strategies: -counting on -making 10 -doubles-addition and subtraction are related |  | -identifying values of Canadian coins-counting multiplies of the same coin-role-play financial transactions, integrating the concept of wants and needs |  | -repeating patterns-translating patterns-letter-coding a pattern-predict next element(s)-patterns using 10-frames, 100 charts-numerical patterns(skip counting) | -sorting 3D objects and 2D shapes using 1 attribute-explain the sorting rule-comparing 2D shapes and 3D objects in the environment-describing relative position (up and down, in and out)-replicate composite 2D shapes (use 2 or more of 1 shape to create a new shape)-replicate composite 3D objects (use plasticine, etc.) | -tiling an area-non-uniform units (pencils) vs uniform units (cubes)-using multiple cubes to measure a string and only one cube to measure the string |  | using the language: never, sometimes, always, more likely, less likely |
| Reasoning and Analyzing | Estimate reasonably. |  |  |  |  |  |  |  |  |  |  |  |
| Use technology to explore mathematics |  |  |  |  |  |  |  |  |  |  |  |
| Model mathematics in contextualized experiences |  |  |  |  |  |  |  |  |  |  |  |
| Develop mental math strategies and abilities to make sense of quantities. |  |  |  |  |  |  |  |  |  |  |  |
| Use reasoning and logic to explore and make connections. |  |  |  |  |  |  |  |  |  |  |  |
| Understanding and Solving | Use multiple strategies to engage in problem solving (e.g., visual, oral, role-play, experimental, written, symbolic). |  |  |  |  |  |  |  |  |  |  |  |
| Develop, construct, and apply mathematical understand-ing through role-play, inquiry, and problem solving. |  |  |  |  |  |  |  |  |  |  |  |
| Visualize to explore mathematical concepts |  |  |  |  |  |  |  |  |  |  |  |
| Engage in problem-solving experiences that are connected to place, story, and cultural practices relevant to the local community. |  |  |  |  |  |  |  |  |  |  |  |
|  | Communicate 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 and personal interests |  |  |  |  |  |  |  |  |  |  |  |
| Incorporate First Peoples worldviews and perspectives to make connections to mathematical concepts |  |  |  |  |  |  |  |  |  |  |  |