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**Lesson Plan Template (Revised 2020)**

**Elementary Years**

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| **Name:** | **Vicki Chen** |

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| **Grade** | 2 | **Topic** | Math – Addition and Subtraction with Manipulatives |  |
| **Date** | May 26th/2021 | **Allotted Time** | 35 mins |  |
| **STAGE 1: Desired Results**  **Cite sources used to develop this plan:** | | | |
| <https://curriculum.gov.bc.ca/curriculum/mathematics/> Developing Mathematics with Base Ten P.58  Making Math Meaningful to Canadian Students, K-8 P.224 | | | |

**Rationale**: *How is this lesson relevant at this time with these students? Why is it important?*

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| The development of mathematic competencies (in this case, manipulatives) involves oral discussion, ADST as well as individual practice and reflection. Through the use of written, oral, and kinesthetic practice, students develop fluency and flexibility in knowledge application. |

**Core Competencies:** <https://curriculum.gov.bc.ca/competencies> (refer to “profiles” for some ideas)

*Which sub-core competencies will be the focus of this lesson? Briefly describe how and why:*

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| **Communication**   * Communicating * Collaborating | **Thinking**   * Creative Thinking * Critical & Reflective Thinking | **Personal and Social**   * Personal Awareness & Responsibility * Positive Personal & Cultural Identity * Social Awareness & Responsibility |
| **Communication**  **Collaboration**  Students develop the ability to communicate and share ideas.  Students will work in pairs. Together, the students will work on the problems, one at a time. | **Reflective Thinking**  Students reflect on prior knowledge while working with new methods for solving problems. Students will reflect on prior knowledge of addition with double digits. Students will reflect on algorithms that have been previously practiced (such as number lines). Students will also reflect on addition strategies with blocks. |  |

**First Peoples Principles of Learning (FPPL):**

*How will Indigenous perspectives, knowledge & ways of knowing be acknowledged, honoured or integrated into this learning experience?* (Jo Chrona’s Blog: <https://firstpeoplesprinciplesoflearning.wordpress.com/>)

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| **FPPL to be included in this lesson:** | **How will the FPPL be embedded in lesson:** |
| **Learning involves patience and time.** | **Mathematics involves practice that takes patience and time. Repetition is important to mastering the skills.** |

**Curriculum Connections:** <https://curriculum.gov.bc.ca/> (Curriculum)

*What Big Ideas (Understand), Curricular Competencies (Do), Content (Know) does this lesson develop?*

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| ***Understand***  Big Idea(s):  Development of computational fluency in addition and subtraction with numbers to 100 requires an understanding of place value.  *Essential or Guiding Question (s):*  Can students demonstrate understanding of place values up to 100 and addition and subtraction up to 100? |
| ***Do***  Curricular Competencies (Learning Standards):**Understanding and solving**   * Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving * Visualize to explore mathematical concepts |
| ***Know***  Content (Learning Standards): Addition and Subtraction to 100 and number concepts to 100 |

**STAGE 2: Assessment Plan**

FORMATIVE ASSESSMENT: (Assessment as Learning; Assessment for Learning)

Observe students use of base 10 to solve double digit equations. Focus on the how well students understand how to use base 10. Students will demonstrate understanding by demonstrating the difference between 1s and 10s. Students will do this with blocks on a place value mat. Finding the correct answer is of secondary importance; students will review the correct answers at the end of the lesson.

SUMMATIVE ASSESSMENT: (Assessment of Learning)

Observe student progress and competency applying the use of base 10 to solve double digit equations. Each lesson is an example of the summation of all past exercises. Students who show competence reveal past learning.

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| **The Learning Intention:**  *What will students learn in this lesson? (i.e. Learning Standards)* | I can use base ten blocks to solve addition and subtraction questions to 100 |
| **Evidence of Learning:**  *How will students demonstrate their learning? What does it look like?* | Students use the blocks on the place value mat to demonstrate competency with addition and subtraction up to 100. |
| Criteria: *What do students need to do to meet or achieve the learning intention?* | In a shared process, students work collaboratively to use the blocks on the place value mats. Students need to demonstrate understanding of addition and subtraction up to 100. |

**Planning for Diversity:**

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| **Learning Target:** *In what ways does the lesson meet the needs of diverse learners?*  *How will you plan for students who have learning/behaviour difficulties or require enrichment?* | | |
| Students need to/must do   * Addition on the place value mat. * Work with double-digit numbers up to 100. * Students will practice regrouping double-digit numbers up to 100.   Access/All | Students can do   * Create their own algorithm using double-digit numbers up to 100.   Most | Students could do/try to   * Discuss and determine the most effective and efficient algorithm using double-digits up to 100. * Observe and discuss the patterns they see.   Few/Challenge |

**STAGE 3: Learning Plan**

**Resources, Material and Preparation:** *What resources, materials and preparation are required?*

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| * Base 10 block set (include 4 rods and over 10 minis) * Ten and One place value mat (Each Group) * Whiteboard and Dry Erase Marker |

**Organizational/Management Strategies:** *(anything special to consider?)*

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| If the groups do not work well, make adjustments quickly.  Redirect students who are not on task.  Encourage students with a failure-positive attitude. |

**Lesson Development:**

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| **Connect:**  *How will you introduce this lesson in a manner that engages students and activates their thinking? Activate or build background knowledge, capture interest, share learning intention.* | | Pacing |
| **Teacher will**   * Review how to use Base 10 blocks * Ask the Class, “What is this called? *Place value mat*   “How many columns do we have?” *2* “What does the first column represent?” *1s* “What does the second column represent?” *10s*  “What is the name of this block?” *Base ten block*  “What does this rod  represent?” *A group of 10*   * Ask students if they have any questions. * Molding 4 ways to do represent number. * Example Question: Number 42 in 4 different ways. * Number * Words * Expanded Form * Base 10 Block * Ask students to show 3 tens and 8 ones in other 3 ways. | **Students will**   * Sit at the table and listen * Answer questions * Ask questions * Solve Number on their White broad. | 10 mins |

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| **Process:**  *What steps and activities are you going to use to help students interact with new ideas, build understanding, acquire and practice knowledge, skills* *and/or attitudes? In what ways have you built in guided practice?* | | Pacing |
| **Teacher will**   * Put students into pairs based on their seating arrangement. * Give out the Base 10 Block and Place Value Mat * Give students a roll in the group (one to use base 10 blocks, one to document) * List the adding questions on the whiteboard (4-5 mins on each question) 30+7, 47-18, 47+39, 66-28, 18+24, 45+55, 100-43 * Between questions, students will clear the place value mat * Ask students to write down the answer on the whiteboard | **Students will**   * Get into a group * Discuss with each other which role they want * Solve questions | 15 mins |

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| **Transform:**  *How will students apply or practice their learning? Can they show or represent their learning in personalized ways? What are the choices for student task?* | | Pacing |
| **Teacher will**   * After 5 mins on each question, the teacher asks students to show their answers to everyone. Students who finish early can double check their answer, and add that answer to the whiteboard. * Ask the class how they came up with the answer. How did you use the blocks? | **Students will**   * Raise their hand and explain their steps for solving the problem. * Possibly show how they solved the problems | 3 mins |

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| **Closure:**  *How will you solidify the learning that has taken place and deepen the learning process?*  *Refer back to the learning intention, connect to next learning.* | | Pacing |
| **Teacher will**   * Wrap up the challenge question * 2 mins warming for clear up and move on to the next subject or activities | **Students will**   * Finish their work and clean up their desk * Put the blocks and mats back to their proper spots | 2 mins |

**Reflection** *What was successful in this lesson? If taught again, what would you change to make this lesson even more successful and inclusive for diverse and exceptional students?*

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Lesson Planning Guide (adapted from Thompson Rivers University)

*The lesson plan template is designed as a guide for students to use when planning lessons. The plan may be adapted to specific subject areas and modified as students gain experience or to suit their presentation style. The template is a basic outline that can be used directly as printed or expanded from the electronic version. It is important that the lesson plan be sufficiently clear and detailed so that another teacher could use the plan to teach the lesson.*

***Rationale****: Why are you teaching this particular lesson at this time? One consideration is the context for the lesson (e.g. this introductory lesson determines what students know and want to know about the topic, this lesson relates to previous and future learning by . . .) Another consideration is student motivation (e.g. what are some reasons the learner might care about the content/concepts/ skills for future learning, careers, or interests?).*

***Curricular Connections:***

The curriculum asks you to plan what the students will DO, what they will KNOW, and then what they will UNDERSTAND. ***Big ideas*** *capture the “big picture” or general area of learning (e.g. interdependence of living things with the environment, stories are a source of creativity and joy) and will be what students come to UNDERSTAND.* ***Curricular competencies*** *are what students will DO in their learning activities (e.g. using comprehension strategies, sorting and classifying data, making ethical judgments) that are related to each discipline. The* ***learning standards for content or concepts*** *are a more specific consideration of what students will come to KNOW. Many of the standards are written in broad, general terms to allow flexibility. You can, using the intention of the standard, make it clearer and more specific (e.g. learners will be able to describe the main idea in a paragraph or story, learners will be able to classify leaves based on properties they identify). The lesson should make a connection to both types of learning standards – curricular competencies as well as content. A reminder that the direction of new curriculum has identified core competencies of thinking, communication, and personal / social development as a foundation for all curricula.*

***Learning Intentions:*** *How can you make clear and share with your learners what they are going to learn or have learned or accomplished? Statements like: “I can add two fractions” help frame their learning in positive student language.*

***Prerequisite Concepts and Skills:***  *What concepts and skills are needed for students to be successful? This communication helps connect lessons together in a logical sequence by building/scaffolding new knowledge onto previous learning. For example, if students are going to be engaged in debate did you build or scaffold group work strategies, communication skills, expected etiquette, criteria beforehand?*

***Materials and Resources /References*** *List all materials and resources that you and the students will need. What things do you need to do before the lesson begins? (e.g. prepare a word chart.) What things do the students need to do? (e.g.read a chapter in the novel.) Have you honoured the sources of ideas or resources? Disorganized materials can ruin a great lesson.*

***Differentiated Instruction (DI): (accommodations):*** *How will you accommodate for diverse learners in your class? How will you allow for some variety in expression of learning? How can you modify the learning activities for success? How can you provide engaging extra challenges for those that are ready? How might you alter the learning environment if needed? Have you considered Aboriginal and cultural influences? IEP’s?*

***Assessment and Evaluation:*** *Did the students learn what you taught them? What tools might you use for assessment (e.g. check list, rubric, anecdotal record). How will you provide formative feedback to students about their learning? The results of the assessment should be directly connected to what your students were able to write say or do related to the learning intentions and or curriculum. Strive for accuracy and build assessment into teaching and learning and not as an “add on” at the end.*

***Organizational/Management Strategies:*** *Have you thought-out organizational management strategies to facilitate a proactive positive classroom environment? Some examples are: organizing for movement, distributing and collecting materials, grouping strategies, blended grade classroom logistics.*

***Aboriginal Connections / First Peoples Principles of Learning:***  *Are there any connections to Aboriginal or other cultural knowledge, worldviews, or principles of learning?*

###### Lesson Activities/Structure:

***Connect****: How will you get students interested/motivated/ hooked into learning? How will you connect this lesson to past and future lessons? How can you share the learning intentions in student friendly language? How will you provide a lesson overview?*

***Process****: What sequence of activities will the student’s experience? What will you do? What will they do? Estimate how much time will each activity take (pacing)? What are grouping/materials strategies? There are many ways to describe the body (step by step, two columns dividing student and teacher activities, visual flow chart of activities and connections, others?)*

***Transform****: How will students apply and personalize the learning? What will they do or create to show you that they have learned?*

***Closure:*** *How will the lesson end? (e.g. connecting back to learning intentions, summarizing learning, sharing of accomplishments, connecting to next lessons). Google “40 ways to close a lesson.”*

***Reflections****: Complete the reflections section as soon as possible after teaching the lesson. What went well? What revisions would you make to the lesson? Anything else***?**