** LESSON PLAN (PILOTED 2022)**

**Candidate’s name:**

|  |  |  |  |
| --- | --- | --- | --- |
| Grade/Class/Subject: | Grade 4/ Math | School: | Sacred Heart |
| Date: | Feb 24/2022 | Allotted Time: | 1hr 15min |
| Topic/Title: | Patterns and Multiplication Bingo | | |

1. **LESSON ORIENTATION**

**Key resources:** [Instructional Design Map](https://www.dropbox.com/s/g7l0nd7jah1o927/InstructionalDesignMap.pdf?dl=0)

|  |
| --- |
| *Briefly, describe purpose of lesson, and anything else to note about the context of lesson, students, or class, e.g. emergent learning needs being met at this time, elements of focus or emphasis, special occasions or school events.* |
| To learn more about patterns and review multiplication skills in a fun way. Engaging the need for students to learn through play.  Bingo Cards: http://www.multiplication.com/sites/default/files/files/BingoCards.pdf |

1. **CORE COMPETENCIES**

**Key resources:** <https://curriculum.gov.bc.ca/competencies>

|  |  |
| --- | --- |
| **Core /Sub-Core Competencies** *(check all that apply):* | *Describe briefly how you intend to embed Core Competencies in your lesson, or the role that they have in your lesson.* |
| COMMUNICATION – Communicating  COMMUNICATION – Collaborating  THINKING – Creative Thinking  THINKING – Critical Thinking  THINKING – Reflective Thinking  PERSONAL AND SOCIAL – Personal Awareness and Responsibility  PERSONAL AND SOCIAL – Positive Personal and Cultural Identity  PERSONAL AND SOCIAL – Social Awareness and Responsibility | Analyzing and critiquing   * I can gather and combine new evidence with what I already know to develop reasoned conclusions, judgments, or plans.   Students will focus on their critical thinking skills by multiplying the answers on the board using mental math strategies; they will use their knowledge of multiplication from previous lessons as well as the idea that bingo relies on these multiplication patterns to play. Students will use this combined knowledge to judge whether they have achieved BINGO or not. |

1. **INDIGENOUS WORLDVIEWS AND PERSPECTIVES**

**Key resources:** First Peoples Principles of Learning (FPPL); [Aboriginal Worldviews and Perspectives in the Classroom](https://www2.gov.bc.ca/assets/gov/education/administration/kindergarten-to-grade-12/indigenous-education/awp_moving_forward.pdf)

|  |  |
| --- | --- |
| **FPPL to be included in this lesson** *(check all that apply):* | *How will you embed Indigenous worldviews, perspectives, or FPPL in the lesson?* |
| Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.  Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).  Learning involves recognizing the consequences of one's actions.  Learning involves generational roles and responsibilities.  Learning recognizes the role of Indigenous knowledge.  Learning is embedded in memory, history, and story.  Learning involves patience and time.  Learning requires exploration of one's identity.  Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations. | This will be achieved in two ways; first the teacher will ensure that they are patient during bingo and wait an appropriate amount of time for students to silently answer their bingo cards before moving to the next number, and second students are to understand they are to take the time they need when answering the multiplication questions and to ask the teacher to slow down if they need more time. |

1. **BIG IDEAS**

**Key resources:** <https://curriculum.gov.bc.ca/> (choose course under Curriculum, match lesson to one or more Big Ideas)

|  |
| --- |
| *What are students expected to understand? How is this lesson connected to Big Idea/s or an essential question?* |
| Regular changes in patterns can be identified and represented using tools and tables.  OR  Development of computational fluency and multiplicative thinking requires analysis of patterns and relations in multiplication and division.  Essential Question: Can I play a game like BINGO accurately using multiplication and knowledge of patterns? |

1. **LEARNING STANDARDS/INTENTIONS**

**Key resources:** <https://curriculum.gov.bc.ca/> (choose course under Curriculum)

|  |  |
| --- | --- |
| **Curricular Competencies:**  *What are students expected to do?* | **Content:**  *What are students expected to learn?* |
| Understanding and Solving   * Demonstrate and apply mathematical understanding through play.   Communicating and Representing   * Explain and justify mathematical ideas and decisions   Students are to demonstrate mathematical understanding by playing bingo and accurately answering the equations on the board silently. Students are then asked to justify their decisions when BINGO is called and communicate the answers. | * multiplication and division facts to 100 (introductory computational strategies) * increasing and decreasing patterns, using tables and charts   The bingo cards do not go into triple digits so students are expected to learn how to compute equations up to 100 as well as recognize that bingo is a game of patterns in which students have to get 5 in a row to win. |

1. **ASSESSMENT PLAN**

**Key resources:** [Instructional Design Map](https://www.dropbox.com/s/g7l0nd7jah1o927/InstructionalDesignMap.pdf?dl=0) and<https://curriculum.gov.bc.ca/classroom-assessment>

|  |
| --- |
| *How will students demonstrate their learning or achieve the learning intentions? How will they know if they are proficient? How will the evidence be collected, documented and shared? Mention any opportunities for feedback, self-assessment, peer assessment and teacher assessment. What tools, structures, or rubrics will you use to assess student learning (e.g. Performance Standard Quick Scale)? Will the assessments be* ***formative****,* ***summative****, or both?* |
| Students will demonstrate their learning by answering the multiplication equation on the board in the form of daubing or crossing off the answer on their bingo card, and they will know they are proficient when they answer the majority of answers on the board after a BINGO. Evidence will be collected by asking students to return card with their name on it and any questions they have on the back which will allow the teacher to assess student understanding by the accuracy of the answers as well as any questions on the back. These assessments will be formative and the bingo card will be the assessment tool. |

1. **DESIGN CONSIDERATIONS**

**Key resources:** [Instructional Design Map](https://www.dropbox.com/s/g7l0nd7jah1o927/InstructionalDesignMap.pdf?dl=0)

|  |
| --- |
| *Make brief notes to indicate how the lesson will meet needs of your students for: differentiation, especially for known exceptionalities, learning differences or barriers, and language abilities; inclusion of diverse needs, interests, cultural safety and relevance; higher order thinking; motivations and specific adaptations or modifications for identified students or behavioural challenges. Mention any other design notes of importance, e.g. cross-curricular connections, organization or management strategies you plan to use, extensions for students that need or want a challenge.* |
| This lesson can be differentiated by allowing EA’s to help struggling students while playing the game.  \*I could also give students a multiplication table to refer to if they are struggling, but I also do not want an over-reliance on it before students try to answer the questions first.  To motivate students teacher can provide prizes or stickers based on interest.    All Students: must answer the questions as best as they can and then answer the questions on the bingo card when they are answered together as a class  Most students: can answer the questions accurately and answer the questions on the board as a class  Some students: could get a BINGO and answer the questions on the board by themselves. |
| **Required preparation:** *Mention briefly the resources, material, or technology you need to have ready, or special tasks to do before the lesson starts, e.g. rearrange desks, book a room or equipment.* |
| * Bingo Cards x2 for every student * Bingo Daubers x23 OR Colours |

1. **LESSON OUTLINE**

|  |  |  |
| --- | --- | --- |
| **Instructional Steps** | **Student Does/Teacher Does** *(learning activities to target learning intentions)* | **Pacing** |
| **OPENING:** | Begin lesson by reviewing multiplication and connect the lesson to patterns  Students answer a few review questions.  Ask students: What is a pattern? Can you give me some examples of patterns in your life? What kind of patterns are there that involve numbers? | 5min |
| **BODY:**   * *Best order of activities to maximize learning -- each task moves students towards learning intentions* * *Students are interacting with new ideas, actively constructing knowledge and understanding, and given opportunities to practice, apply, or share learning, ask questions and get feedback* * *Teacher uses learning resources and strategic opportunities for guided practice, direct instruction, and/or modelling* * *Can include: transitions, sample questions, student choices, assessment notes (formative or otherwise), and other applications of design considerations* | Explore patterns in multiplication and how they can help students remember math strategies. Explain it with the idea that math is the type of subject that likes to follow rules and when you find the rule you can figure out the answer.  Do some example questions with the students.  Spot the pattern:  2, 4, 6 = pattern of adding 2  5, 25, 100 = pattern multiply by 5  Finish the pattern:  6, 12, 18, \_\_, \_\_  Give students a short time to finish the pattern pages in their workbooks.  Students take turns rolling the dice. Whichever number the dice has is what the teacher multiplies on the board but does not answer:  Student rolls- 6  Teacher writes: Uses a random second number writing 6x3 BUT does not answer it  Students: Silently answer 18 on their bingo card if they have it  This continues as the dice is passed around with each student getting a chance to roll.  When a student gets 5 numbers in a row they can call BINGO!!  Students work together as a class  OR  Student who won  (?)  has to answer the equations written on the board to achieve bingo!  EX: 6x3= 18 ALL students cross off (or colour) that box if not already done  The question is whether students solve those questions on the board already written out as a class or as the bingo winner  If time permits students can play another game or 2 with prizes(?) awarded! | 5min  15min  2min  15min  5min  15-30min  \*Subjective |
| **CLOSING:**   * *Closure tasks or plans to gather, solidify, deepen or reflect on the learning* * *review or summary if applicable* * *anticipate what’s next in learning* * *“housekeeping” items (e.g. due dates, next day requirements* | Review what we learned and what we will be doing next lesson. | 5min |

1. **REFLECTION** *(anticipate if possible)*

|  |
| --- |
| * *Did any reflection in learning occur, e.g. that shifted the lesson in progress?* * *What went well in the lesson (reflection on learning)?* * *What would you revise if you taught the lesson again?* * *How do the lesson and learners inform you about necessary next steps?* * *Comment on any ways you modelled and acted within the Professional Standards of BC Educators and BCTF Code of Ethics?* * *If this lesson is being observed, do you have a specific observation focus in mind?* |
| This lesson taught me the importance of balancing fun with learning as students were very excited to play a game and even those who did not like math or multiplication got very engaged with this. This lesson also helped me to get a better grasp of how to differentiate in small ways by allowing students to have a multiplication table with them every students regardless of level was able to fully participate and enjoy the game.  Doing patterns first went really well as students had the incentive to do it so they could play a game afterwards. Playing BINGO afterwards also went really well and students were very engaged with the multiplication aspect of it. It was also beneficial for students to have the option to have a multiplication table on hand which helped those who were struggling to keep pace with the game.  If I was to revise this lesson I would include more time for students to transition from the patterns activity to BINGO as well as emphasize why BINGO is especially connected to patterns allowing students to explore how games and math connect with each other.  Professional Standards 1 and 3: this was modeled by valuing the participation of all students regardless of skill level which included providing the supports students needed to be successful and by applying the knowledge of student development at grade 4 this was modeled by allowing students to be social helping eachother with the pattern section as well as letting students get very excited and a little loud for an exciting game like BINGO. |