

Candidate's name: EMORY GEORGES

Grade/Class/Subject:	Kindergarten Math	School:	Suwilaawks Community School
Date:	Feb 10 th 2023	Allotted Time:	35-40 minutes
Topic/Title:	Decomposing/Composing 5s/10s (Mapping math equations)		

1. LESSON ORIENTATION

Key resources: [Instructional Design Map](#)

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.

Students have prior knowledge of adding and subtracting using concrete examples. Conceptually they understand the math; however, mapping the conceptual to the mathematical representations (equations) is still a work in progress for many of them. This lesson aims to help reinforce their understanding of adding up to 5 (composing) and breaking up 5 into various addends (decomposing) which form an equation. The theme uses hearts for Valentine's Day as counters (math manipulatives).

2. CORE COMPETENCIES

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

Core /Sub-Core Competencies <i>(check all that apply):</i>	<i>Describe briefly how you intend to embed Core Competencies in your lesson, or the role that they have in your lesson.</i>
<input checked="" type="checkbox"/> COMMUNICATION – Communicating <input checked="" type="checkbox"/> COMMUNICATION – Collaborating <input type="checkbox"/> THINKING – Creative Thinking <input checked="" type="checkbox"/> THINKING – Critical Thinking <input type="checkbox"/> THINKING – Reflective Thinking <input type="checkbox"/> PERSONAL AND SOCIAL – Personal Awareness and Responsibility <input type="checkbox"/> PERSONAL AND SOCIAL – Positive Personal and Cultural Identity <input type="checkbox"/> PERSONAL AND SOCIAL – Social Awareness and Responsibility	<p>As a class, students will discuss how to decompose numbers to 10 and ways to make 5.</p>

3. INDIGENOUS WORLDVIEWS AND PERSPECTIVES

Key resources: First Peoples Principles of Learning (FPPL); [Aboriginal Worldviews and Perspectives in the Classroom](#)

FPPL to be included in this lesson <i>(check all that apply):</i>	<i>How will you embed Indigenous worldviews, perspectives, or FPPL in the lesson?</i>
<input type="checkbox"/> Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors. <input checked="" type="checkbox"/> Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place). <input type="checkbox"/> Learning involves recognizing the consequences of one's actions. <input type="checkbox"/> Learning involves generational roles and responsibilities. <input type="checkbox"/> Learning recognizes the role of Indigenous knowledge. <input type="checkbox"/> Learning is embedded in memory, history, and story. <input checked="" type="checkbox"/> Learning involves patience and time . <input type="checkbox"/> Learning requires exploration of one's identity.	<p>This lesson builds on prior knowledge and provides an interactive way to map the symbolic mathematical representations to concrete examples (math manipulatives) .</p>

Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.

4. 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?

MATH

- Numbers represent quantities that can be decomposed into smaller parts.
- One-to-one correspondence and a sense of 5 and 10 are essential for fluency with numbers.

5. LEARNING STANDARDS/INTENTIONS

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

Curricular Competencies: <i>What are students expected to do?</i>	Content: <i>What are students expected to learn?</i>
<p>Reasoning and analyzing</p> <ul style="list-style-type: none"> • Use reasoning to explore and make connections • Develop mental math strategies and abilities to make sense of quantities • Model mathematics in contextualized experiences <p>Understanding and solving</p> <ul style="list-style-type: none"> • Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving • Visualize to explore mathematical concepts <p>Communicating and representing</p> <ul style="list-style-type: none"> • Represent mathematical ideas in concrete, pictorial, and symbolic forms 	<p><i>Students are expected to know the following:</i></p> <ul style="list-style-type: none"> • ways to make 5 • number concepts to 10 • decomposition of numbers to 10 • change in quantity to 10, using <i>concrete materials</i>

6. ASSESSMENT PLAN

Key resources: [Instructional Design Map](#) 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? Will you use **observations**, have targeted **conversations**, or collect **products**? 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 practice mapping equations using math manipulatives individually. Teacher will observe and provide support. Assessments are formative. The purpose is to practice and become familiar with the symbolic math representations. $5 = 4 + 1$ represents that [♥♥♥♥♥] = [♥♥♥♥♥] + [♥]

7. DESIGN CONSIDERATIONS

Key resources: [Instructional Design Map](#)

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 does not require students to write numbers or math equations. It aims to help students map the concrete examples / conceptual knowledge to actual math equations. Students start with decomposing 5s and after they can continue practicing 5s or try decomposing 10s.

This activity can also work in reverse where students practice standard addition seeking to find the sum, by moving the addends to the sum box.

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.*

Felt board - Felt hearts (10) plus a felt “plus sign”
Whiteboard/markers, Smart TV /PC for presentation.

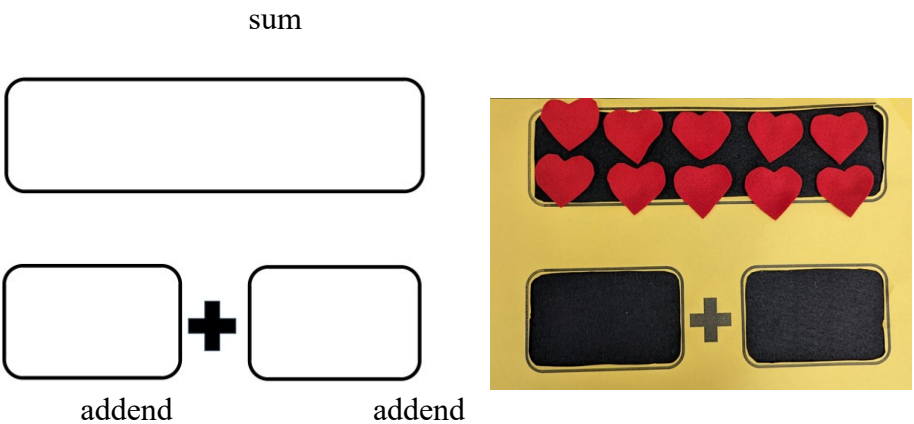
Each student will have their own game board paper and a bag of 10 heart tokens. This way they can independently practice.

Files:
MATH - strips of addition.docx [Note: Equations will be provided as worksheets and NOT cut into strips. After the lesson, a version will be made as a Math Center which will use the equations pasted on Popsicle sticks.] We will have each group start with equations decomposing 5s, and if successful they can challenge doing 10s.

MATH - Composing playboard.docx (Printouts for the game board)

8. LESSON OUTLINE

Instructional Steps	Student Does/Teacher Does <i>(learning activities to target learning intentions)</i>	Pacing
---------------------	--	--------

<p>OPENING: <i>e.g. greeting students, sharing intentions, look back at what was learned, look ahead to what will be learning, use of a hook, motivator, or other introduction to engage students and activate thinking and prior knowledge</i></p>	<p>Students come to the class mat to review the previous slide presentation on addition to 5.</p> <p>Introduce the Felt board of hearts. Explain that we will learn about making 5s and 10s today using the hearts.</p>	<p>3 min</p>
<p>BODY:</p> <ul style="list-style-type: none"> • 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 	<p><i>Using a Feltboard and felt hearts, have the students practice ways that we can make 5. Do not show an equations, place 5 felt hearts into the felt sum box. Explain the two bottom boxes are called addend boxes.</i></p> <div style="text-align: center;"> <p>sum</p>  <p>addend addend</p> </div> <p>After students practice making five, write the equation on the whiteboard showing how we get the numbers.</p> <p>If we add the two contents of the addend boxes they will match / be the same as the contents in sum box</p> <p>Then show the way to decompose the sum into various addends by emptying the addend boxes and moving the contents of the sum box into them.</p>	

	<p>Map the equation after each step: How many in the Sum box? $5 =$ Moving 5 into one addend box and the other is empty. $5 + 0$ $5 = 5 + 0$</p> <p>Show again with 1 and 4. Then 4 and 1. They still add up to 5. Do again but this time say we are going to challenge to 10.</p> <p>Same procedure. 10 hearts in sum box, move 4 into one box. Move 6 into another box. $10 = 4 + 6$.</p> <p>Next show the students their own playboard and bag of hearts, and a sheet of math equations. Explain the first sheet is for 5s. Once they have tried mapping all them, students may challenge themselves with sheets for decomposing 10s. When students get stuck they can ask an adult supporter (Teacher / EA) or their peers in their groups to help them. Before moving on to the 10s, students must show the teacher their answers for the last two puzzle based equations (which only has one addend given.)</p>	
<p>CLOSING:</p> <ul style="list-style-type: none"> • 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) 	<p>We can continue on with making 10s next Math lesson, and answering actual math equation worksheets.</p>	

9. REFLECTION (anticipate if possible)

<ul style="list-style-type: none"> • Did any reflection <u>in</u> learning occur, e.g. that shifted the lesson in progress? • What went well in the lesson (reflection <u>on</u> 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?