Montessori Lesson Plan

School: Maria Montessori Academy	Teacher: Mr. Morgan
Subject/Topic(s): Math 7. Integer Operations	
Grade Level: 7	Theme: Connections

Curriculum Components Included: ❑Lesson ❑ Student engagement during lesson ❑Interdisciplinary Connections

Seven Gateways for Adolescence addressed in this lesson: ❑Meaning & Purpose

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Standards/Objectives (BC Math 7)

Topics
- Continue with operations with integers
- Single Step Operations to 3 digits
- By any method (Montessori, hand, calculator)

Objectives
- Model mathematics in contextualized experiences
  - acting it out, using concrete materials (e.g., manipulatives), drawing pictures or diagrams, building, programming
- Apply multiple strategies to solve problems in both abstract and contextualized situations
- Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving
- Visualize to explore mathematical concepts

Materials: Teacher	Materials: Student	Time/Dates
• Stamp Game, with paper blanks for writing • Problem examples • Writing instrument	• Stamp Game with paper blanks for writing • Problem examples • Writing instrument	• Cycle 1, Day 1 (2021: Oct 4)

Facts/Skills (Prior Knowledge)	Concepts/Big Ideas
• Numbers • Meaning of operation symbols + - = • Place value • Place values of coloured tiles • Equivalence of 10 units = a single 10 tile, 10 ten tiles = one 100 tile, etc •	• Operations with integers • Representing integers in multiple ways

Lesson Relates to Theme
> Connection

Connection to Elementary Material or Lesson
Stamp Game

Step-by-Step Procedures

1st Period Lesson – 20 minutes (Include steps and materials)
- o   Review counting using unit tiles
- o   Review adding using unit tiles
- o   Review relative and substitution value of tiles with different place values, focusing on units and tens, eg. 10 units = a single 10 tile, 10 ten tiles = one 100 tile, etc
- Presentation of static and dynamic addition using the Stamp Game
  - ▪ Demonstrate 3 + 2 with tiles
  - ▪ Write the addends 3 and 2 on the paper, and the + sign
  - ▪ On the paper, write the answer given by counting the tiles
  - ▪ Demonstrate 7 + 5 with tiles
  - ▪ Write the addends 7 and 5 on the paper, and the + sign
  - ▪ On the paper, write the answer given by counting the tiles

- Presentation of static and dynamic subtraction using the Stamp Game
  - ▪ Demonstrate 3 - 2 with tiles
  - ▪ Write the minuend 3 and subtrahend 2 on the paper, and the - sign
  - ▪ On the paper, write the answer given by removing 2 tiles from 3
  - ▪ Demonstrate 12 - 7 with tiles
  - ▪ Write the minuend 12 and subtrahend 7 on the paper, and the - sign
  - ▪ Demonstrate exchanging the tens tile for ten unit tiles
  - ▪ On the paper, write the answer given by removing 7 tiles from 12

2nd Period – Recognition (Shelfwork)*	2nd Period – Recall Practice
• Students solve given problems independently using the Stamp Game	• Students solve written problems with or without stamp game

3rd Period – Student Application
- Students describe a situation and give an example (eg. money, water flow) in which they might add and subtract quantities
- Students complete worksheet using the stamp game to solve similar problems as previously given

Plan for Differentiation (at least one should be filled in)		
Teaching	Work	Assessment
1:1 support in review/practice	1:1 support of independent work	Verbal /scribed option

Outside Support: Who, What, How
Classroom Assistant

Formal Assessments *in addition to* regular observation (at least one should be filled in;)

Formative Assessments
Students self-report completion and confidence of Stamp Game shelf work.

Summative Assessment
Integer Addition and Subtraction section on Unit test