

WHAT'S POPPIN'?

A. Hladick, R. Lothes, A. Early, A. Branch

EMPACTS Project Spring 2023 - Mathematical Structures II

Dr. Marjorie Whitmore - Northwest Arkansas Community College Bentonville AR, 72712

Introduction

We are preservice teachers taking a math structures course where we are learning mathematical systems and applying them. We have worked specifically with one K-12 mentor in the community to develop lesson plans and activities that meet specific grade level math standards. We have developed and taught a curriculum based lesson in a local school.

Curricular 1

Demonstrate understanding of mathematical systems


Curricular 2

prepare and present core mathematics lesson using some form of technology that can be incorporated into the EMPACTS Program Project



K-12 Mentor
Amy Laymon

Kindergarten - Bonnie Grimes
Elementary Rogers, AR



Introduction and Lesson Plan



Arkansas Math Standard	AR.Math.Content.K.OA.A.5 Fluently add and subtract within 10 by using various strategies and manipulatives
Manipulatives	Pop-It Toys
Purpose	To promote Addition and subtraction fluency using the popular toy pop-its



Lesson Goals and Objective



Lesson Goal

I am learning to find the total in story problems

I can add and subtract within 10 using tools

Success Criteria

- I can use objects and manipulatives to show my thinking
- I can use pictures to show how to use my manipulative
- I can show my thinking using numbers and tools

Lesson Procedure and Activities

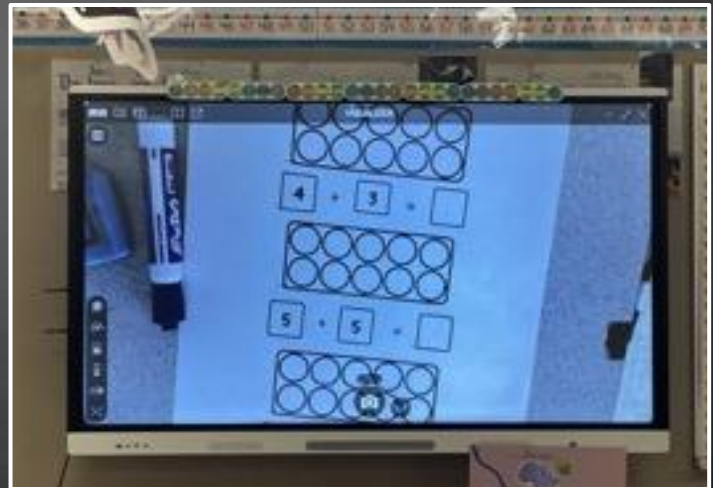
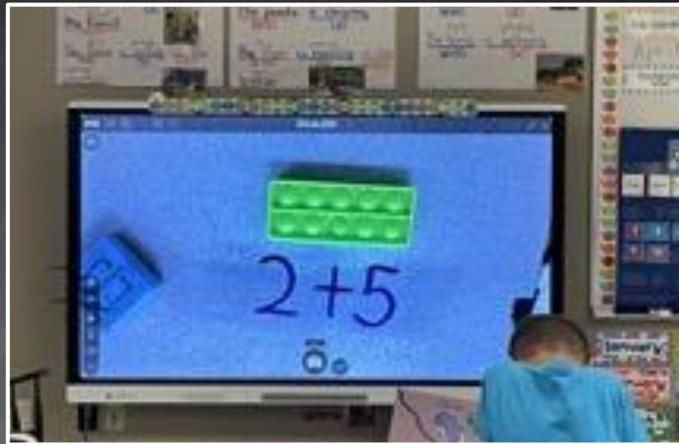
Duration: 40 Minutes

Students began seated on the floor while they were instructed on how to use pop-it toys mathematically

We went over several practice problems before pairing them up to practice with their pop-its. They solved problems given on the board using their manipulatives together, and individually.

The Students then were able to complete the worksheet/Learning Assessment with little to no instructor help.

Instruction





Worksheet and Learning Assessment

Students filled in pop-it illustrations on paper and missing numbers to demonstrate their ability to add and subtract within 10 using manipulatives. Most students were successful at this with little to no help.

Teaching Feedback

Adaptability

If manipulatives were not available, students could use two different colored crayons/markers to complete the worksheet in the same way it would be completed with the pop-its

Reproduction

Luckily, with only slight changes, our lesson can easily be reproduced by other teachers and educators. It's easy use of manipulatives and assessment tools makes it a prime resource for for our grade level

Safety

Poppers and other manipulatives can be wiped down between use to limit the transfer of germs and disease between and among students

Learning Experience

We Learned a variety of skills including professionalism, and the importance of flexibility in the classroom. Upon arrival two of us were sent to the wrong classroom and we started our lesson close to 30 minutes after anticipated.

In the classroom, flexibility is one of the most important tools you can have. Be responsive to students and willing to adapt to any situation you might find yourself and your students in.



Skills from Learning Experience

1

Teamwork

2

Problem Solving

3

Time Management

4

Use of Technology

5

Communications

6

Classroom
management

7

Used mathematical
standards to
Develop lesson and
activities

8

How to assess
learning

9

Time management



Acknowledgments



Bonnie Grimes Elementary

Rogers Public Schools

K-12 Mentor: Amy Laymon

Marjorie Whitmore, Math Structures II

Northwest Arkansas Community College



Citations

Citations are linked in documents

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