

Math 3 - Act. 02: Unifix Cubes

Summary

This activity has students use unifix cubes to improve their mental math skills.

Main Core Tie

Mathematics Grade 3

[Strand: OPERATIONS AND ALGEBRAIC THINKING \(3.OA\) Standard 3.OA.7](#)

Additional Core Ties

Mathematics Grade 3

[Strand: NUMBER AND OPERATIONS IN BASE TEN \(3.NBT\) Standard 3.NBT.2](#)

Group Size

Individual

Materials

- Unifix cubes
- Plastic cup for each students
- Touch bell
- Card with symbols + and –
- Student math mat (piece of laminated construction paper)
- Digits 0 – 9 in a set. One set for every three students.

Background for Teachers

In grades 3-5, students' development of number sense should continue with a focus on multiplication and division. Their understanding of the meanings of these operations should grow deeper as they encounter a range of representations and problem situations, learn about the properties of these operations and develop fluency in whole number computation.

Students are often taught to add, subtract, multiply, and divide symbolically without looking at patterns. In these lessons, students use the unifix cubes and unifix flash cards as a visual tool to recognize and learn patterns. When they have explored patterns on their unifix flash cards, then they connect these patterns to mental math strategies and to symbolic notation. Next, connections are made to these same concepts utilizing a different model referred to as "Roll-ups."

By incorporating the process standards students learn patterns and strategies they can use to solve other problems.

Students should already understand addition and subtraction fact families.

Intended Learning Outcomes

1. Demonstrate a positive learning attitude toward mathematics.
2. Become mathematical problem solvers.
3. Reason mathematically.
4. Communicate mathematically.
5. Make mathematical connections.
6. Represent mathematical situations.

Instructional Procedures

Have each student count out 7 unifix cubes and place some of them in their left hand and some of them in their right hand.

Let the students know that when you say the word "report," they will say in this way: "I have three plus four equals seven." to report their data out loud.

Repeat steps 1 and 2.

Follow the same procedure, but this time ask the students to add and subtract unifix cubes from their mat by listening to a bell and watching for the symbol to tell them what operation to perform.

Repeat for mastery.

Extensions

Possible Extensions/Adaptations

Introduce overheads for mental math skills. Have students look for friendly combinations of numbers (e.g., numbers that make 10, or doubles).

Assessment Plan

Students may play the game "Salute." Students will work in groups of three. One child is the General. The General shuffles the cards (digits 0-9). The other two children draw one card from the General and hold it against their chest, without looking at it. When the General says, "Salute", the two children with cards put their card on their forehead so the General and the other child can see it. The general adds the two numbers together, using mental math skills and they says the sum. The first child to identify their own number, is the winner of that round and they gather both cards and set them in a pile. The child that has accumulated the greatest number of cards at the end of play is the winner. The children take turns being the General.

Authors

[Utah LessonPlans](#)