

Topics: Math, Number Sense, Addition, Sorting

## Materials List

$\checkmark$ Dinosaur (or other plastic pieces) of various shapes and colors
$\checkmark$ Optional: tic-tac-toe board
$\checkmark$ Optional: cardboard ring enclosure or small boxes
$\checkmark$ Optional: array/grid

This activity can be used to support the teaching of: Common Core Math Standards:

- Counting (Grade K, Counting and Cardinality, .1, 2, 4, 5, 6; Grade 1, Number and Operations in Base Ten, 1)
- Addition and

Subtraction
(Operations and Algebraic Thinking, Grade K, 1, 2, 5; Grade 1, 1, 3, 4, 6)

- Measure, Compare, \& Classify objects and Data (Measurement and Data, Grade K, 13; Grade 1, 1, 2, 4)
- Patterns (Grade 1, Measurement \& Data, 4.1)
- Problem Solving and Reasoning (Math Practices Grades K-3)


## Dinosaur, Dinosaur!

## The Coolest Math Manipulatives this Side of the Jurassic Period



Plastic dinosaur shapes in a variety of styles and colors make excellent math manipulatives! They can be used for endless activities that teach number sense, estimation, basic addition, and much more... excellent for centers or as a group activity.

## To Do and Notice (Ideas for Using Dinosaurs as Math Manipulatives)

Patterning - Dinosaur pieces make great patterning pieces. Begin with 2 different dinosaurs (shape and color), and then gradually add variables.

Tic-Tac-Toe - Use 2 types of dinosaurs as tic-tac-toe pieces for the classic 3-in-arow game.

2 Dino Paddocks - Using 2 cardboard rings or boxes, instruct students to sort 10 - 15 dinosaurs into 2 groups.

Dinosaurs in a Jar - Place 5 - 50 dinosaurs in a clear jar. Ask students to estimate the number of dinosaurs in the jar, and then count them together, one by one.

Dino Parade - Make a row for the dinosaurs to line up for the "dino parade". Then, instruct students, one by one, to place their dinosaurs in their place for the parade. "Mary, your dinosaur will march in the third spot; please put him in the third space." "Liam, please put your dinosaur in the fifth spot." "Debbie, your dinosaur will march first in the line."

Dinosaur Bar Graphing - Have each student pull out a dinosaur from a bucket and hold it out for the rest of the class to see. Ask the students, "Which type of dinosaur do you see the most of?" One by one, students bring their dinosaurs up to a class bar graph and place their dinosaur on the graph in the correct location. Which type of dinosaur are there really the most of? And how many are there all together? "Let's count all of them, one by one, and see."

## Hints and Tips

- Reference ordinal numbers whenever possible (first, second, third, etc.).
- Use position words often (on top of, below, above, beside, beneath)
- Encourage students to explain their choices and reasoning. "Explain why you estimated that there were 20 dinosaurs in the jar." Their logic might surprise you!

Web Resources (Visit www.raft.net/raft-idea?isid=124 for more resources!)

- Teacher designed math courses from the New Jersey Center for Teaching \& Learning - $\underline{\text { https: }: / / n j c t l . o r g / c o u r s e s / m a t h ~}$

