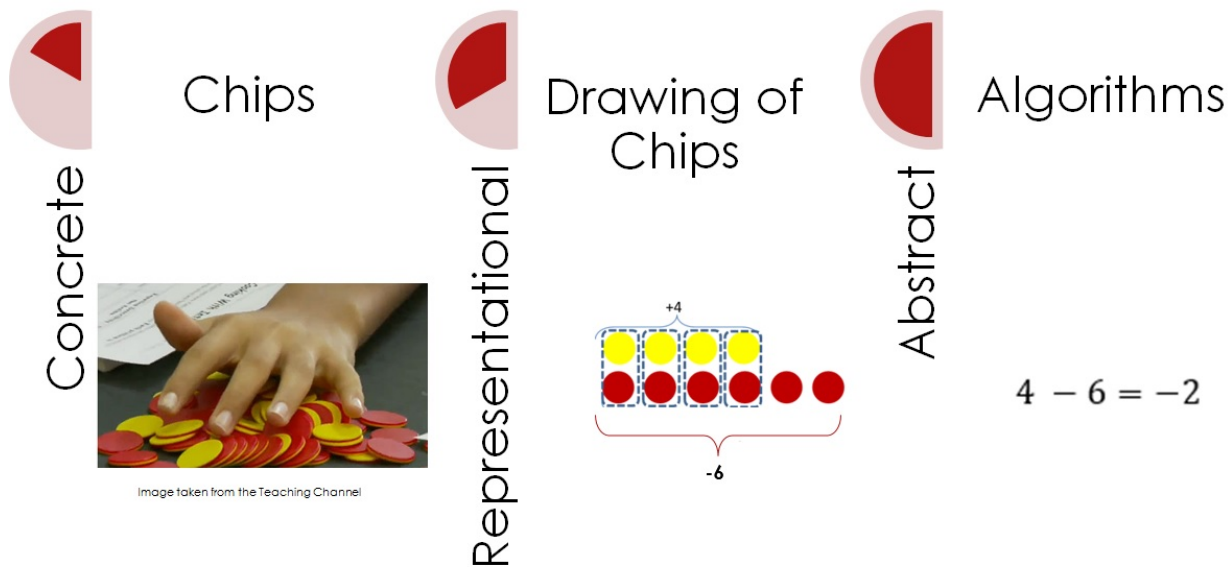




Purpose

The purpose of teaching through a concrete-representational-abstract approach to instruction ensures students have a thorough understanding of the math concepts/skills they are learning. When students who have math learning problems are allowed to first develop a concrete understanding of the math concept/skill, then they are better prepared to perform that math skill and truly understand math concepts at the abstract level.

CRA nurtures the understanding of underlying mathematical concepts before learning “rules,” moving from a concrete model of chips or blocks for multiplication to an abstract representation such as $5 \times 3 = 15$.

CRA engages students’ physical, verbal, and visual senses through manipulatives. Manipulatives allow students to experience contextual situations prior to transitioning knowledge to abstract symbology.

Concrete: The “doing” stage using concrete resources (manipulatives) to model problems

Representational: The “seeing” stage using representations (drawing/algorithm) of objects to model problems

Abstract: The “symbolic” state using abstract symbols (formulas, variables) to model problems