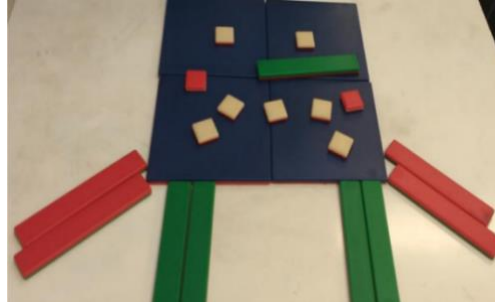# Geometry Concepts and Connections

Unit 1: Exploring Polynomial Expression through Geometry

Overview:

In this unit, students will learn to use geometric shapes to justify operations with polynomial expressions. Students will add, subtract, and multiply polynomials in contextual situations and will make connections between integers and polynomials by using a concrete-representational-abstract (C-R-A) approach to problem solving.

Learning Targets:

In Unit 1, students will:

- Interpret polynomial expressions of varying degrees that represent a quantity in terms of its given geometric framework
- Perform different operations with polynomials
- Prove polynomials form a system analogous to the integers in that they are closed under these operations
- Add, subtract, and multiply single variable polynomials using algebraic reasoning

Key Vocabulary: (linked to GA DOE Interactive Glossary)

Binomial Expression	Constant Term	Coefficient	Difference
Expression	Factor	Greater than	Integer
Less than	Monomial Expression	Perimeter	Polynomial
Quotient	Ratio	Standard Form of a Polynomial	Sum
Term	Number of Times	Trinomial Expression	Twice
Variable			

Supporting Resources:

http://ctlslearn.cobbk12.org/   https://www.mathsisfun.com/algebra/expanding.html

https://gavirtual.instructure.com/courses/34328