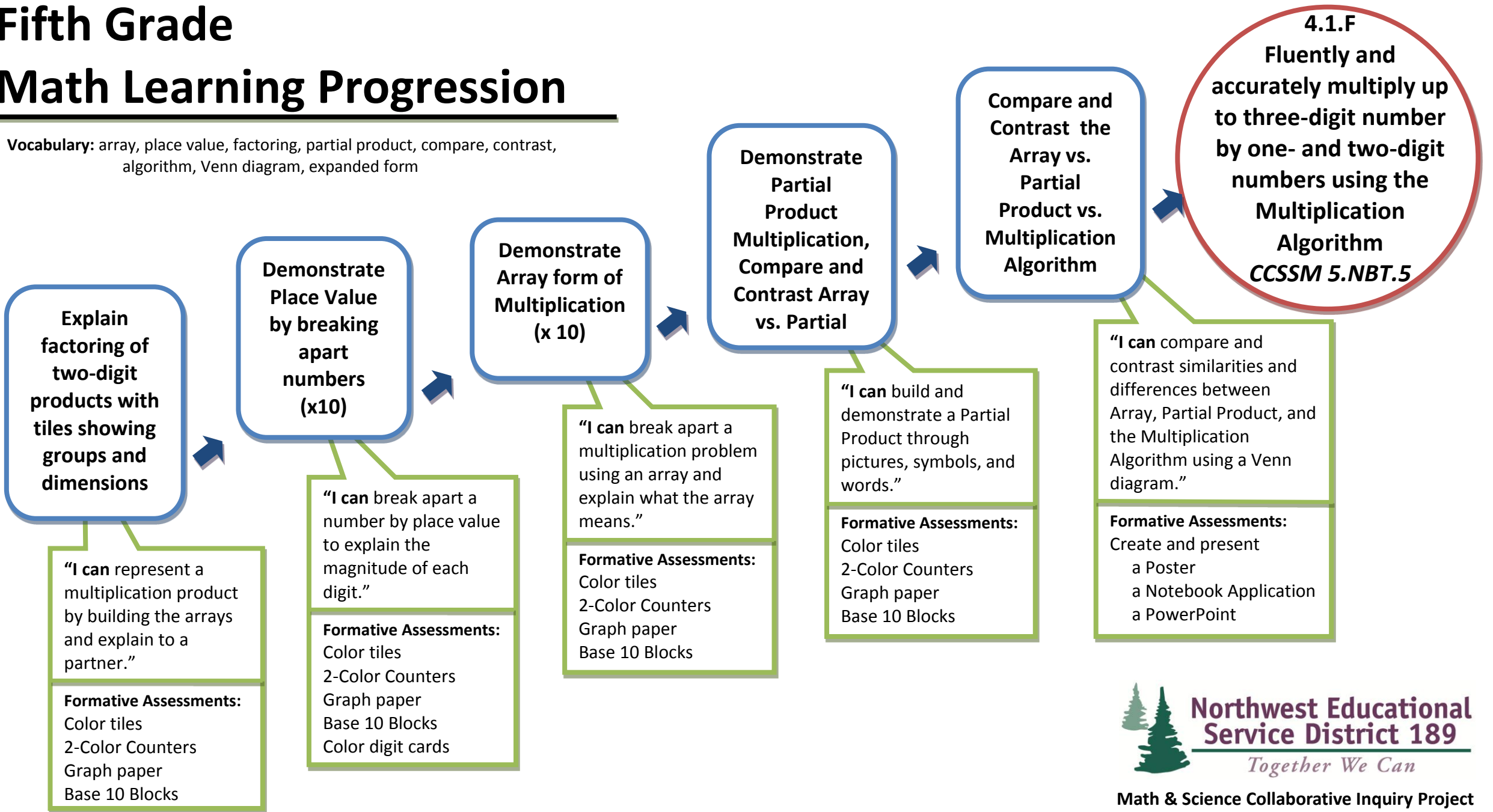# Fifth Grade Math Learning Progression

**Vocabulary:** array, place value, factoring, partial product, compare, contrast, algorithm, Venn diagram, expanded form

**Explain factoring of two-digit products with tiles showing groups and dimensions**

**Demonstrate Place Value by breaking apart numbers (x10)**

**Demonstrate Array form of Multiplication (x 10)**

**Demonstrate Partial Product Multiplication, Compare and Contrast Array vs. Partial**

**Compare and Contrast the Array vs. Partial Product vs. Multiplication Algorithm**

**4.1.F Fluently and accurately multiply up to three-digit number by one- and two-digit numbers using the Multiplication Algorithm**
*CCSSM 5.NBT.5*

"**I can** represent a multiplication product by building the arrays and explain to a partner."

**Formative Assessments:**
Color tiles
2-Color Counters
Graph paper
Base 10 Blocks

"**I can** break apart a number by place value to explain the magnitude of each digit."

**Formative Assessments:**
Color tiles
2-Color Counters
Graph paper
Base 10 Blocks
Color digit cards

"**I can** break apart a multiplication problem using an array and explain what the array means."

**Formative Assessments:**
Color tiles
2-Color Counters
Graph paper
Base 10 Blocks

"**I can** build and demonstrate a Partial Product through pictures, symbols, and words."

**Formative Assessments:**
Color tiles
2-Color Counters
Graph paper
Base 10 Blocks

"**I can** compare and contrast similarities and differences between Array, Partial Product, and the Multiplication Algorithm using a Venn diagram."

**Formative Assessments:**
Create and present
    a Poster
    a Notebook Application
    a PowerPoint

**Northwest Educational Service District 189**
*Together We Can*

**Math & Science Collaborative Inquiry Project**