

# MP2d-Factors and Multiples

Content Area: **Math**  
Course(s): **Math 4**  
Time Period: **Marking Period 2**  
Length: **MP2 Topic 7 7-1 to 7-3**  
Status: **Published**

## Essential Questions

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- How can you use arrays or multiplication to find the factors of a number?
- How can you identify prime and composite numbers?
- How can you find multiples of a number?

## Big Ideas

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- **Factors and Factor Pairs:** Students find factors and factor pairs for a given number.
- **Prime and Composite Numbers:** Students classify whole numbers greater than 1 as either prime or composite.
- **Relationships Between Factors and Multiples:** Students come to understand that a whole number is a multiple of each of its factors.
- **Factors and Equivalent Fractions:** Students will work to find factor pairs which will lay the foundation for generating an equivalent fraction by dividing the numerator and denominator by a common factor greater than 1.

## Technology Connection

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8.1.5.AP.1 Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

## Enduring Understandings

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### Operations and Algebraic Thinking

4.OA.B.4 [M] Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

### Number and Operations in Base Ten

4.NBT.B.5 Multiply a whole number of up to four digits by a one-digit whole number, (and multiply two two-digit numbers), using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

### **Mathematical Practices Focus**

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8. Look for and express regularity in repeated reasoning