## Grade 6 - N03 within Unit 3: Factors, Multiples, Prime and Composite Numbers, and Order of Operations (Application of Partitioning)

NO3 Students will be expected to demonstrate an understanding of factors and multiples by:

- determining multiples and factors of numbers less than 100
- identifying prime and composite numbers
- solving problems using multiples and factors [PS, R, V]

## **Performance Indicators**

N03.01

N03.02	Determine all the whole number factors of a given number using arrays.
N03.03	Identify the factors for a given number and explain the strategy used (e.g., concrete or visual representations, repeated division by prime numbers, or factor trees).

**N03.04** Provide an example of a prime number, and explain why it is a prime number.

Identify multiples for a given number and explain the strategy used to identify them.

**N03.05** Provide an example of a composite number, and explain why it is a composite number.

N03.06 Sort a given set of numbers as prime and composite.
N03.07 Solve a given problem involving factors or multiples.
N03.08 Explain why 0 and 1 are neither prime nor composite.

Limited	Developing	Competent	In-Depth
Student can <b>skip count and/or model a personal strategy</b> to identify multiples (ex. using a hundreds chart) for <b>some</b> numbers.	Student can <b>model a personal strategy</b> to identify multiples for a given number less than 100 (ex. hundreds chart).	Student can identify multiples for a given number and <b>explain</b> the personal strategy used to identify them.	Student can identify multiples and factors for a given number using a variety of efficient personal strategies and justify the strategies used.
Student can <b>create an array to identify factors</b> of some numbers less than 100.	Student can <b>model</b> factors for a given number and <b>show the personal strategy</b> used (e.g., concrete or visual representations, repeated division by prime numbers, or factor trees).	Student can <b>identify</b> the factors for a given number and can <b>explain</b> the personal strategy used (see p.233-237 in the curriculum document).	
	Student can <b>provide</b> examples of prime or composite numbers.	Student can <b>provide and explain</b> examples and non-examples (0 and 1) of prime numbers, and <b>explain</b> why they are prime numbers.	
		Student can <b>sort</b> a given set of numbers as prime and composite.	
		Student can <b>solve</b> a given problem involving factors or multiples less than 100.	Student can <b>create and solve</b> a <b>variety</b> of problems involving factors or multiples.