

Grade 3 Unpacked Math Standards - Algebra

3.A.1.1. Students are able to **explain** the relationship between repeated addition and multiplication.

Webb Level: 2

Bloom: Comprehension

Verbs Defined:

Explain - to describe by telling and show by solving

Key Terms Defined:

Teacher Speak:

Students are able to explain (describe by telling and showing) the relationship between repeated addition and multiplication.

Student Speak:

I can tell (explain) how repeated addition is related to multiplication.

“4+4+4” is the same as 4×3 .

I can show (explain) how to solve a problem with repeated addition and multiplication.

3.A.1.2. Students are able to **identify** special properties of 0 and 1 with respect to arithmetic operations (addition, subtraction, multiplication).

Webb Level: 1

Bloom: Knowledge

Verbs Defined:

Identify- apply (not expected to know the name of the properties)

Key Terms Defined:

Identity property of addition- adding zero to a number does not change the value

Identity property of multiplication- multiplying a number by one does not change the value

Multiplication property of zero- if any number is multiplied by zero, the product is zero

Teacher Speak:

Students are able to identify (apply) the special properties of zero and one when adding, subtracting and multiplying.

Student Speak

I know (identify) that adding zero to a number doesn't change the value.

I know (identify) that multiplying a number by one doesn't change the value.

I know (identify) that when multiplying a number by zero, the answer is zero.

3.A.2.1. Students are able to **select** appropriate relational symbols (<, >, =) to **compare** numbers.

Webb Level: 1

Comprehension: Comprehension

Verbs Defined:

Select- choose and write

Compare- show differences between numbers

Key terms defined:

Relational symbols - greater than (>), less than (<) and equal to (=)

Teacher Speak:

Students are able to select (choose and write) the appropriate relational symbols to compare (show differences between) numbers.

Student Speak:

I can choose and write (select) the correct symbols (greater than (>), less than (<) and equal to (=)) to show differences (compare) between numbers.

3.A.2.2. Students are able to **solve problems** involving addition and subtraction of whole numbers.

Webb Level: 2

Bloom: Application

Verbs Defined:

Solve- find an answer to

Key Terms Defined:

Whole numbers- {0,1,2,3,4,5....} counting numbers and zero

Problems: Story problems

Teacher Speak:

Students are able to solve(find an answer to) whole number addition and subtraction problems (story problems).

Student Speak:

I can (solve) find the answer to whole number (0,1,2,3,4,5...) addition problems (story problems).

I can (solve) find the answer to whole number (0,1,2,3,4,5...) subtraction problems (story problems).

3.A.3.1. Students are able to **use** the relationship between multiplication and division to **compute** and check results.

Webb Level: 2

Bloom: Application

Verbs Defined:

Use- explain by telling and showing

Compute- solve for an answer

Key Terms Defined:

Relationship – ways in which two items are related. Multiplication and division are inverse or opposite operations of one another.

Teacher Speak:

Students are able to use (explain by telling and showing) the multiplication and division relationship (inverse operations) to compute (solve for an answer) and check results.

Student Speak:

I can tell and show that multiplication and division are inverse operations. (Opposite operations)

I can identify a multiplication equation that can be used to check my answer to a division problem.

I can identify a division equation that can be used to check my answer to a multiplication problem.

3.A.4.1. Students are able to **extend** linear patterns.

Webb Level: 2

Bloom: Comprehension

Verbs Defined:

Extend- adding on to

Key Terms Defined:

Linear patterns- A pattern in which each term is increased or decreased by a constant amount.

Teacher Speak:

Students are able to extend (add on to) linear patterns (a pattern in which each term is increased or decreased by a constant amount.)

Student Speak:

I can add on to (extend) a sequence of numbers that increases or decreases by a constant amount. (Linear patterns).

3.A.4.2. Students are able to **use** number patterns and relationships to learn basic facts.

Webb Level: 1**Bloom: Application****Verbs Defined:**

Use- apply

Key Terms Defined:

Number patterns and relationships:

- Commutative property
- Rectangular arrays

Basic Facts: Multiplication facts to 10

Teacher Speak:

Students are able to use (apply) number patterns and relationships (commutative property and rectangular arrays) to learn the basic facts (multiplication facts to 10).

Student Speak:

I can apply (use) what I know about commutative property and rectangular arrays (number patterns and relationships) to learn multiplication facts to 10 (basic facts).