Addition Strategies

(1st Grade, OA
APS Stepping Stones:
Module 7)

addends → 3 + 2 = 5 ← sum
addition sign (plus sign) ↑
equal sign ↑

What are strategies that help us add?

Counting On

0, 1, 2

3 + 9 → 9 + 3 → 10, 11, 12

number track

I start at __ and add __ more.

Double


3 + 3 = 6
Double + 1


3 + 4 = 7
Double + 2

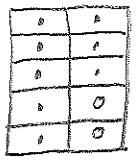

3 + 5 = 8

I'll use the double strategy. __ plus __ is __.

__ and __ is __ plus __ more is __.

Make-ten

8 + 3 = 11



__ + __ makes 10. I add __ more. That makes __.

What are rules about addition?

In addition, the order of the addends doesn't matter.

(tape blocks)

3 + 5 = 8

5 + 3 = 8

We add numbers that are easiest to group first.

7 + 4 + 3 = 14

(Interactive area - use laminate or clear tape)

__ + __ = __

__ = __ + __

__ + __ = __

turnaround fact → __ + __ = __

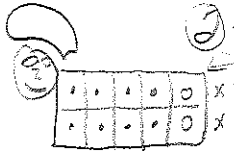
__ = __ + __

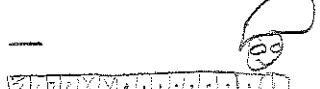
+

__ + __ = __

Ms. __ has 2 cats, 4 dogs and 8 fish. How many pets does she have?

2 + 4 + 8 = __


14 pets


14 pets

14 pets

Standards and Mathematical Practices

1) We will use strategies to solve addition problems.

2) We will solve word problems with 3 numbers and explain our thinking to others.

What we know about addition

Inquiry Chart

What we want to learn about addition

AIM4S³ ™ 1st Grade APS Stepping Stones

UNIT PLANNING TOOL

Module
Unit 7: Addition Strategies
CCSSM: (Connecting with module 2 + 6)

See attached.

Math Practices being emphasized:

- Reason abstractly and quantitatively
- Look for and make use of structure

Essential Questions

When do we use the make-ten strategy?

How does using addition strategies help us solve problems faster?

Pre and Post Assessments

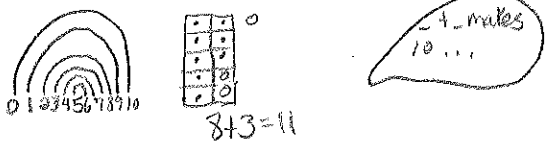
Pretest - Stepping Stones Module 7

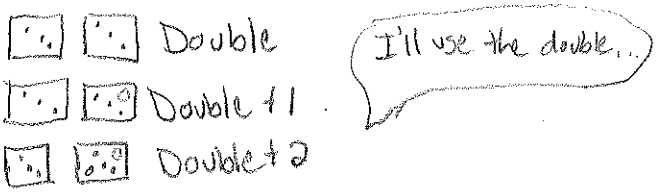
Posttest - Check-up module 7 and open response word problem

Key Concepts

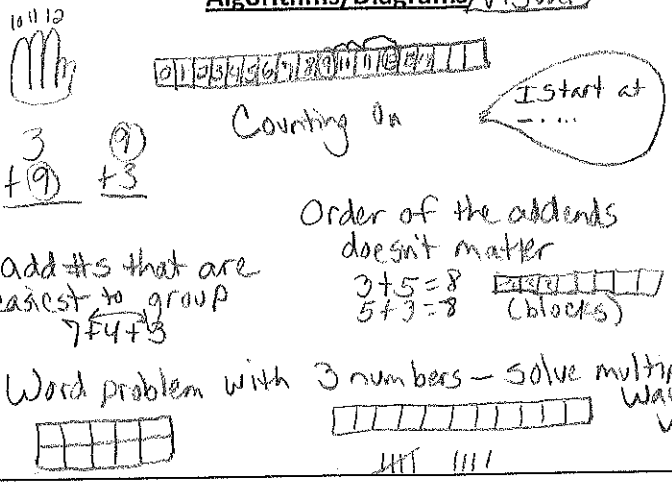
- Make-ten strategy
- Solving word problems adding 3 numbers
- Understand the Commutative and Associative Properties of addition

Visual Models of Concepts





Algorithms/Diagrams/Visuals



Connections (Real World Applications)

* highlight real situations in classroom where using addition

* Word problems that students can relate to from home and school experiences (* Key for EL students)

AIM4S³ ™

Language Functions/Structures

— plus — makes 10
— plus — equals —
The sum of — and — is —.
I think it's — because —.

To add — plus —. I start at —
and — more. (counting on)
— plus — makes ten. Then I
add — more. (make ten)
— plus — is — plus 1 or 2 more is — (doubles)
Double — is — plus 1 or 2 is —.

Vocabulary

turnaround fact
addition
subtraction
addend
sum
Counting all
make-ten
Counting on
double
double plus one, plus two
Strategy (ies)
equation
number sentence
equals 'the same as'
order
first
second

Focus and Motivation

Lesson #1 - book How Many Legs? plus activity
Addition Bump Too Chart
Ten Flashing Fireflies (book) by Philemon Sturges
BrainPop Jr. - Basic Addition, Make 10
On line Game Stepping Stones - Three Sum

On completion of this module the students should be able to:

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1.OA.2

Write and solve addition word problems with three one-digit numbers

Understand and apply properties of operations and the relationship between addition and subtraction.

1.OA.3

Use the commutative property of addition

Use the associative property of addition

Add and subtract within 20.

1.OA.6

Use a strategy (make-ten) for addition facts

Fluently add within 10

Geometry

Reason with shapes and their attributes.

1.G.3

Represent one-half