Base 10 System

1 1 1

hundreds tens ones

flats longs cubes

346 = 300 + 40 + 6 → expanded notation

Addition and Subtraction

9+6=3 ← equation / number model

3+6=9 ← sum

9-6=3 → difference

Partial Sums:

	Tens	Ones
35	III	
+26	II	

50 + 11

Answer: 61 books

24 − 12

Answer: 12 books

There were 15 monsters at the table. 9 more sat down. How many altogether?

Total: 15 | Part: 9 | Part: 6

Answer: 24 monsters

Number model: 15+9=24

(Sketch and highlight as needed)

There were 10 cupcakes. 5 were blue. The rest were red. How many were red?

Total: 10 | Part: 5 | Part: ?

Answer:

Number model:

(color)

Fact Families

15 (+ −) 7, 8

7+8=15

8+7=15

15-8=7

15-7=8

11 (+ −) 8, 3

11=8+3

11=3+8

8=11-3

3=11-8

19 monsters are at the party. 13 monsters went home. How many are left?

Start: 19 | Change: 13 | End: 6

Answer: 6 monsters

Number model: 19-13=6

One monster ate 23 pieces of candy. He ate 9 more and felt sick. How many pieces of candy did he eat?

Start: 23 | Change: +9 | End:

Answer:

Number model:

Mathematical Standards and Practices

1. We will use fact families to add and subtract.
2. We will add and subtract 2 digit numbers with precision.
3) We will persevere in solving word problems.

Inquiry Chart

What we know about + and −

What we want to learn about + and −

AIM4S³ ™

UNIT PLANNING TOOL

Unit NBT / OA

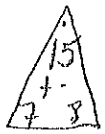
~~Unit Goals:~~
- add within 100 using strategies of place value, properties of operations and/or relationship between addition and subtraction
- explain why addition strategies work using place value

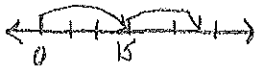
CCSSM:

Standards:
- Use addition and subtraction to solve one step word problems (adding to, taking from putting together)
- understand 3 digits of a 3-digit # represent hundreds, tens and ones

Key Concepts
- place value to hundreds
- adding within 100
- solving word problems in multiple ways
- fact families
- sequence counting
- comparing 2 digit numbers

Visual Models of Concepts





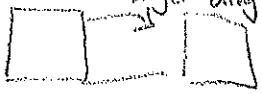
1 1 1
hundreds ones
flat no cubes

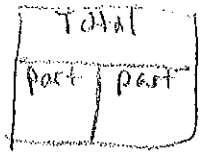
346 = 300 + 40 + 6

- sketches of word problems

Algorithms/Diagrams

Change diagram





Partial Sums

35 + 26

	Tens	Ones
	III	·····
	II	·····

50 + 11

Answer 61 books

24 + 12 = 36

Connections (Real World Applications)
- understanding addition and subtraction being the inverse of each other
- lunch count
- planning a birthday party
- playing a game and keeping score

Language Functions/Structures

Explain.
Describe.

There are ___ hundreds, ___ tens and ___ ones.
___ has ___ tens and ___ ones, ___ is greater than ___. (digit game)
The equation/number model is _____.
___ plus ___ equals ___

Vocabulary

addend
sum
add
equation

Count on
Counting up
making ten

expanded notation
number model