



Somerset Bridge Primary School
Aspire - Brave - Care - Collaborate

Maths: Place Value

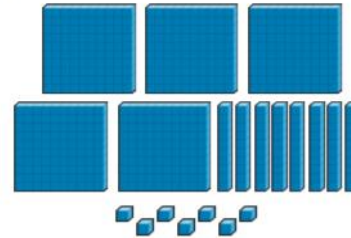
Autumn: Year 3

Represent Numbers to 1000

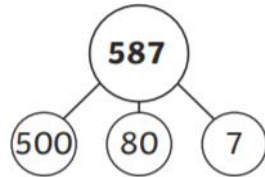
587

five hundred and eighty-seven

| Hundreds | Tens | Ones |
|----------|------|------|
| | | |



$$500 + 80 + 7$$



| Hundreds | Tens | Ones |
|----------|----------|--------------|
| | | |

3 Digit Numbers

256

| two hundred | fifty | six |
|-------------|-------|-----|
| | | |
| 200 | 50 | 6 |

Key Vocabulary

| | | |
|--------------|--|---|
| Hundreds | A number equal to 10 lots of 10. | ✓ |
| Tens | A set of 10 ones. | |
| Ones | A single quantity. | |
| Zero | No quantity. | |
| Greater than | One number value is larger than another number. | |
| Less than | One number value is lesser than the other. | |
| Order | In a pattern. | |
| More | A higher amount. | |
| Less | Not as many. | |
| Partition | A way of splitting numbers into smaller numbers. | |
| Digit | A symbol used to make numbers. | |

Number and Place Value



10 More and 10 Less

| Ten Less | | Ten More |
|----------|-----|----------|
| | | |
| 120 | 130 | 140 |

100 More and 100 Less

| One Hundred Less | | One Hundred More |
|------------------|-----|------------------|
| | | |
| 212 | 312 | 412 |

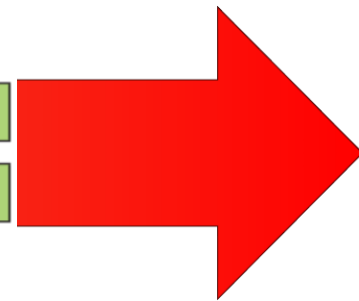
Counting in 4's and 8's

| | | | | | | | | | | |
|---|---|---|----|----|----|----|----|----|----|----|
| 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
|---|---|---|----|----|----|----|----|----|----|----|

| | | | | | | | | | | |
|---|---|----|----|----|----|----|----|----|----|----|
| 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
|---|---|----|----|----|----|----|----|----|----|----|

Counting in 50's
Counting in 100's

| | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
| 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |





Somerset Bridge Primary School
Aspire - Brave - Care - Collaborate

Maths: Addition and Subtraction

Autumn: Year 3

Key Vocabulary



| | |
|--------------------|--|
| Addend | A number which is added to another. |
| Subtrahend | A number to be subtracted from another. |
| Sum | A total amount. |
| Difference | The result of subtracting one number from another. |
| Inverse operation | The reverse of a calculation. E.g. $5+3=8$ $8-3=5$ |
| Less | A value that is not as great. |
| Minus | Subtraction/take away. |
| Column addition | Addition by writing one number below the other and then adding one column at a time. |
| Column subtraction | The numbers to be added or subtracted are set out above one another in columns. |

Written Methods

Column addition:
Starting from the right, add each column in turn. Carry digits to the next column if the total adds to more than 9.

HTO

$$\begin{array}{r} 423 \\ + 248 \\ \hline 671 \end{array}$$

Carry the one to the next column.

HTO

$$\begin{array}{r} 423 \\ + 248 \\ \hline 671 \end{array}$$

Include the 1 in your next addition.

HTO

$$\begin{array}{r} 423 \\ + 248 \\ \hline 671 \end{array}$$

Column subtraction:
Starting from the right, subtract each column in turn.

$$\begin{array}{r} 653 \\ - 527 \\ \hline 126 \end{array}$$

3 subtract 7 would give us a negative number, so we re-group.

$$\begin{array}{r} 653 \\ - 527 \\ \hline 126 \end{array}$$

Exchange one lot of 10, so we now have 13 - 7.

Addition and Subtraction Methods

3 digit and 1 digit numbers
Not crossing 10s
 $268 - 4 = 264$

| Hundred | Ten | Ones |
|---------|-----|------|
| ● | ●● | ●●● |

$343 + 6 = 349$

Crossing 10s (Exchanging)

| 324 | | |
|-----|----|----|
| 300 | 20 | 4 |
| 300 | 10 | 14 |

$316 + 8 = 324$

| 316 | | 8 |
|-----|----|-----|
| ●●● | ●● | ●●● |

$324 - 8 = 316$

3-digit and 2-digit numbers
Add and subtract tens

| Hundred | Ten | Ones |
|---------|-----|------|
| ●● | ●●● | ● |

$451 + 3 \text{ tens} = 481$ ($5 + 3 = 8$)
 $451 - 4 \text{ tens} = 411$ ($5 - 4 = 1$)

Crossing 10s (Exchanging)

$258 + 80 = 338$

- Column method
- Count in 10s mentally
- Add 100, subtract 20

Crossing 10 and 100

| | | |
|-----|-----|-----|
| 368 | 368 | 368 |
| +73 | +73 | +73 |
| 1 | 41 | 441 |
| 1 | 10 | 101 |

3-digit numbers
Not crossing

$679 - 351 = 328$

| Hundred | Ten | Ones |
|---------|-----|------|
| ●●● | ●● | ●●● |
| ●●● | ●● | ●●● |

Crossing 10s (Exchanging)

| | |
|-----|-----|
| 154 | 269 |
| ? | ? |

269
 $+154$
 $\hline 423$
11

4101
 514
 $- 268$
 $\hline 246$

Add and Subtract 100s

$264 + 300 = 564$

| Hundred | Ten | Ones |
|---------|-----|------|
| ●● | ●● | ● |
| ●● | ●● | ● |

Mental Methods

add and subtract 3 digit numbers by counting on and back in 10's.

The ones digit will never change

$365 + 20 = 385$ $782 - 60 = 722$

$60 + 20 = 80$ $80 - 60 = 20$

"365 > 375, 385"

"782 > 772, 762, 752, 742, 732, 722"

Addition on a Number line.



Subtraction on a Number line.





Somerset Bridge Primary School
Aspire - Brave - Care - Collaborate

Maths: Multiplication and Division

Autumn: Year 3

Multiplication Table and Division Facts

3 x Table 4 x Table 8 x Table

$1 \times 3 = 3$
 $2 \times 3 = 6$
 $3 \times 3 = 9$
 $4 \times 3 = 12$
 $5 \times 3 = 15$
 $6 \times 3 = 18$
 $7 \times 3 = 21$
 $8 \times 3 = 24$
 $9 \times 3 = 27$
 $10 \times 3 = 30$
 $11 \times 3 = 33$
 $12 \times 3 = 36$

$1 \times 4 = 4$
 $2 \times 4 = 8$
 $3 \times 4 = 12$
 $4 \times 4 = 16$
 $5 \times 4 = 20$
 $6 \times 4 = 24$
 $7 \times 4 = 28$
 $8 \times 4 = 32$
 $9 \times 4 = 36$
 $10 \times 4 = 40$
 $11 \times 4 = 44$
 $12 \times 4 = 48$

$1 \times 8 = 8$
 $2 \times 8 = 16$
 $3 \times 8 = 24$
 $4 \times 8 = 32$
 $5 \times 8 = 40$
 $6 \times 8 = 48$
 $7 \times 8 = 56$
 $8 \times 8 = 64$
 $9 \times 8 = 72$
 $10 \times 8 = 80$
 $11 \times 8 = 88$
 $12 \times 8 = 96$

Division Facts

$3 \div 3 = 1$
 $6 \div 3 = 2$
 $9 \div 3 = 3$
 $12 \div 3 = 4$
 $15 \div 3 = 5$
 $18 \div 3 = 6$
 $21 \div 3 = 7$
 $24 \div 3 = 8$
 $27 \div 3 = 9$
 $30 \div 3 = 10$
 $33 \div 3 = 11$
 $36 \div 3 = 12$

$4 \div 4 = 1$
 $8 \div 4 = 2$
 $12 \div 4 = 3$
 $16 \div 4 = 4$
 $20 \div 4 = 5$
 $24 \div 4 = 6$
 $28 \div 4 = 7$
 $32 \div 4 = 8$
 $36 \div 4 = 9$
 $40 \div 4 = 10$
 $44 \div 4 = 11$
 $48 \div 4 = 12$

$8 \div 8 = 1$
 $16 \div 8 = 2$
 $24 \div 8 = 3$
 $32 \div 8 = 4$
 $40 \div 8 = 5$
 $48 \div 8 = 6$
 $56 \div 8 = 7$
 $64 \div 8 = 8$
 $72 \div 8 = 9$
 $80 \div 8 = 10$
 $88 \div 8 = 11$
 $96 \div 8 = 12$

12x12 Multiplication Table

| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|---|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 3 | 0 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| 4 | 0 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 | 44 | 48 |
| 5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| 6 | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
| 7 | 0 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | 77 | 84 |
| 8 | 0 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 | 88 | 96 |
| 9 | 0 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 | 99 | 108 |
| 10 | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| 11 | 0 | 11 | 22 | 33 | 44 | 55 | 66 | 77 | 88 | 99 | 110 | 121 | 132 |
| 12 | 0 | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 |

Written Multiplication and Division Statements

$5 \times 4 = 20$
 $20 \div 4 = 5$

$4 \times 5 = 20$
 $20 \div 4 = 5$

There are called inverse operations.

Key Vocabulary

| | |
|----------------|---|
| Multiplication | When you take one number and add it together a number of times. |
| Division | Separating a number into parts. |
| Double | Two equal, identical parts. |
| Half | An amount equal to half a whole. |
| Factor | Factors are what we can multiply to get the number. |
| Array | An arrangement of objects in rows or columns. |
| Regroup | When you make groups of ten. |
| Inverse | The reverse of a calculation. E.g. $5 \times 3 = 15$ $15 \div 3 = 5$ |
| Even | A number that can be divide by 2 with no remainders. 2, 4, 6, 8, 0 |
| Odd | A whole number that cannot be divided into two equal whole numbers. 1, 3, 5, 7, 9 |
| Commutative | Swap the digits around and still get the same answer. |

Multiplication Vocabulary

- groups of
- times
- product
- multiply
- double
- lots of
- multiply
- repeated addition

Multiplication Calculation

$4 \times 2 = 8$

- (multiplied by)
- (equals)
- multiplier
- product

Division Vocabulary

- remainder
- group
- share
- divisor
- quotient
- factor
- equal groups of
- divide

Division Calculation

$8 \div 2 = 4$

- (divided by)
- (equals)
- divisor
- quotient