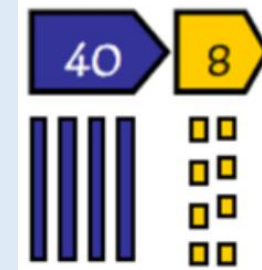


Multiplication

Concrete resources

Place value counters
Dienes
Place value charts
Arrays
Multiplication squares
100 square
Number lines
Blank number lines
Counting stick

1	2	3	4	5	6	7	8	9	10
2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100



multiplication product
once, twice, three times
double groups of
repeated addition lots of
array, row, column multiply
times multiple

Multiplication: Reception

Early learning goal statutory requirement:
✓They solve problems, including doubling, halving and sharing.

Use pictorial representations and concrete resources to double numbers to 10.



$$1 + 1 = 2$$



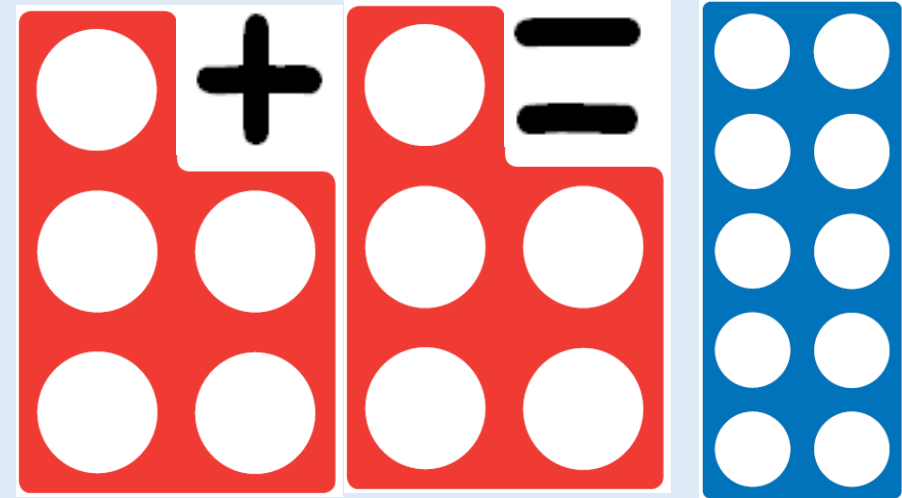
$$2 + 2 = 4$$



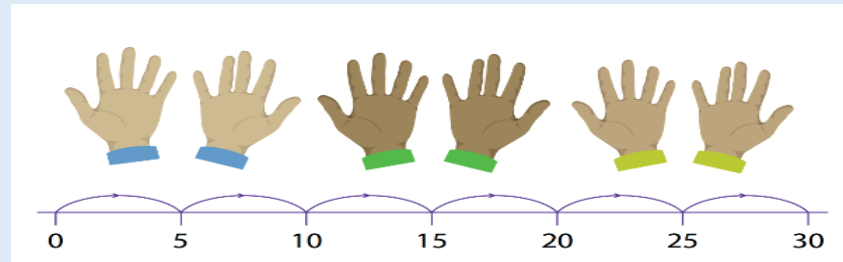
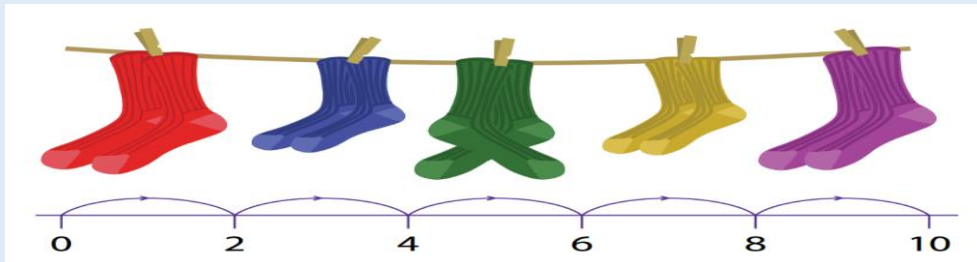
$$3 + 3 = 6$$



$$4 + 4 = 8$$



Use concrete sources, role play, stories and songs to begin counting in twos, fives and tens.

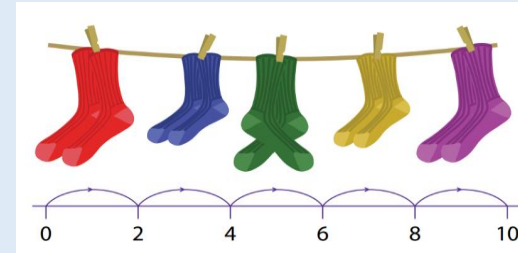
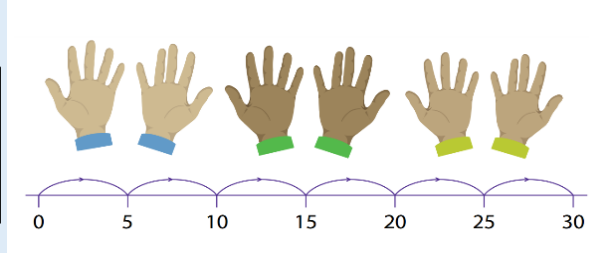


Multiplication: Year 1

Year 1 statutory requirement:


✓ Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

Count in twos, fives and tens using practical resources, role play, stories and songs.



Use arrays

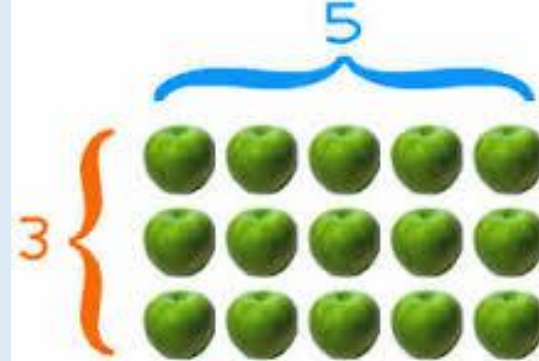
Understand multiplication as repeated addition – use concrete objects to support understanding.


 $2 + 2 + 2 + 2$


 $5 + 5 + 5$

Use pictorial representations


3 groups of 5


15 apples

Multiplication: Year 2

Year 2 statutory requirement:

- ✓ Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- ✓ Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.
- ✓ Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- ✓ Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Further develop understanding multiplication as repeated addition.



$$5 + 5 + 5$$

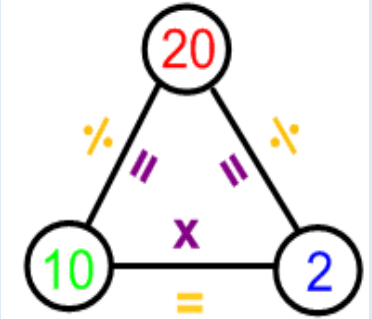
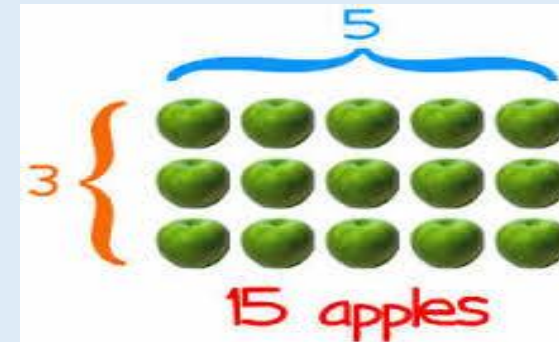
or

$$5 \times 3$$

Use pictorial representations



Use arrays



Recall multiplication and division facts for 2, 5, 10

Model and bridge link from repeated addition to solving multiplication problems using a number line.

