



Year 1 multiplication and division

Prior Knowledge (from Reception)

- Continue, copy and create repeating patterns
- Is able to explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

multiplication and division		Working Towards	Within	Expected	Above
$\times \div$	Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher				
Highlights: _____					



Glossary

vocabulary	word class	definition
multiplication $\times$	noun	the process of combining matrices, vectors, or other quantities under specific rules to obtain their product
division $\div$	noun	the process of dividing a matrix, vector, or other quantity by another under specific rules to obtain a quotient
calculating	verb	determine (the amount or number of something) mathematically
arrays	noun	an arrangement of quantities or symbols in rows and columns; a matrix



half



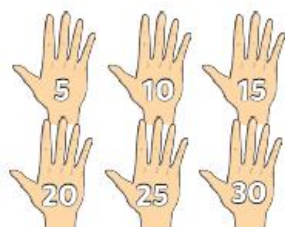
share equally



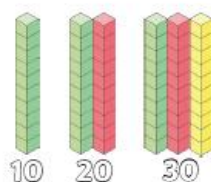
equal groups



double



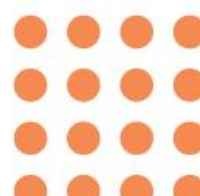
counting in fives



counting in tens

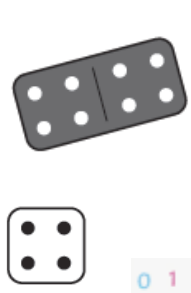


counting in twos



array

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

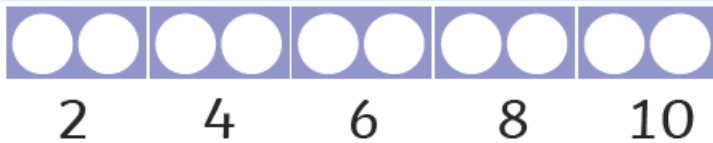








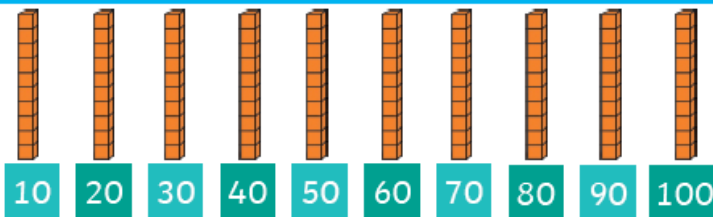
Count in 2s



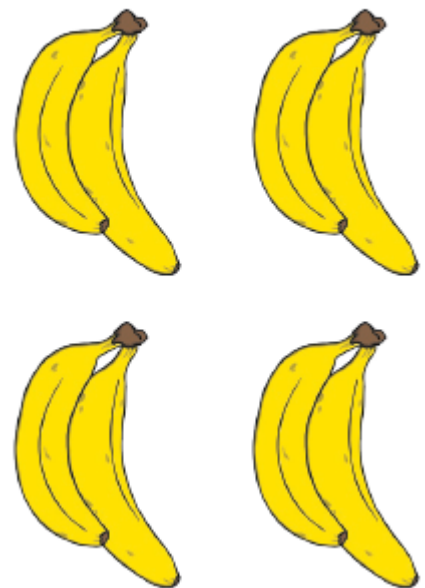
Counting in 5s



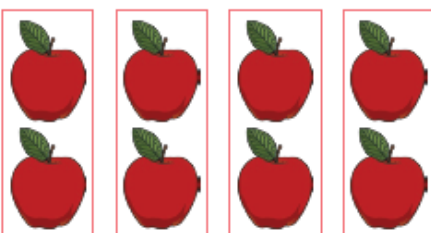
Count in 10s



Make Equal Groups



Add Equal Groups



$$2 + 2 + 2 + 2 = 8 \text{ apples}$$

Make Arrays



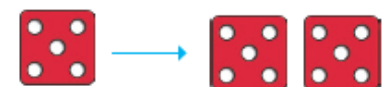
$$4 \text{ rows of } 5 = 20 \text{ cookies}$$

$$5 \text{ columns of } 4 = 20 \text{ cookies}$$

Make Doubles



$$\text{double } 1 \text{ is } 2 \quad 1 + 1 = 2$$



$$\text{double } 5 \text{ is } 10 \quad 5 + 5 = 10$$



Future Learning

Year 2

- 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 2 numbers can be done in any order (commutative) and division of 1 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

Year 6

- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context