Timestables and Spellings parent workshop

Timestables

Times tables -

Times Tables are at the heart of mental arithmetic, which in itself helps form the basis of a child's understanding and ability when working with number. Once the children have learnt the times tables and related divisions by heart, they free up their working memory allowing them to progress far more confidently – and efficiently – through a wide range of more advanced calculations. At Pucklechurch Primary, we believe that through a variety of interactive, visual, engaging and rote learning techniques, most children can achieve the full times tables knowledge required by the end of Year 4.

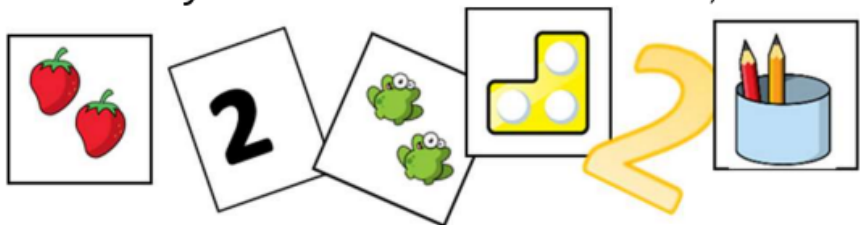
Times Table progression

Year 1	• Count in multiples of 2, 5 and 10. • Recall and use all doubles to 10 and corresponding halves.
Year 2	• Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
Year 3	• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
Year 4	• Recall and use multiplication and division facts for multiplication tables up to 12x12.
Year 5	• Revision of all times tables and division facts up to 12x12.
Year 6	• Revision of all times tables and division facts up to 12x12.

Pre- timestables

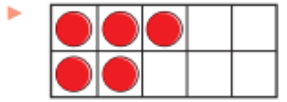
Maths Area

Have sets of picture cards representing 1,2 and 3.
Ask the children to match and sort the cards.
E.g. Collect all the cards which show 2.
Which card does not show 2?
Can you make your own cards to show 1, 2 and 3?

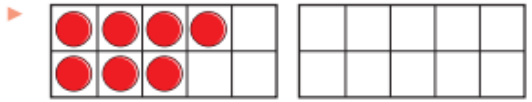


Working with a small group, provide each child with a plate and give them each a handful of snack such as grapes or crackers. Does everyone have the same? Is it fair? Encourage them to notice that some children have more snack and some have less and to share out the snack fairly. Can they check that everyone now has the same?

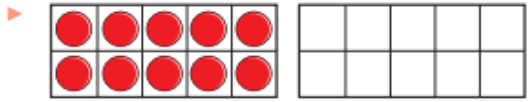
Draw counters to work out the doubles.



Double 5 is _____



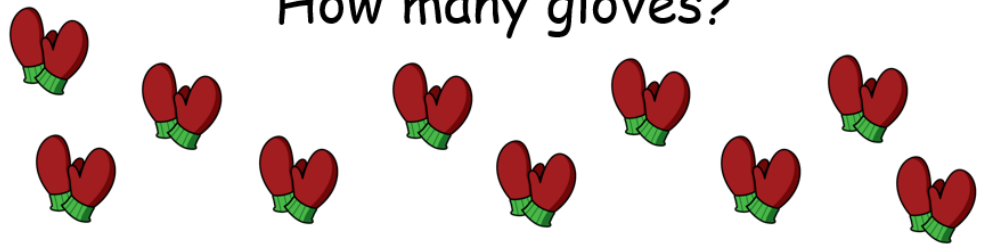
Double 7 is



Double 10 is

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

How many gloves?

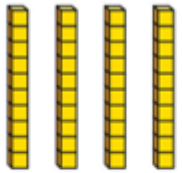


How do children learn times tables?

Groups

Complete the sentences.

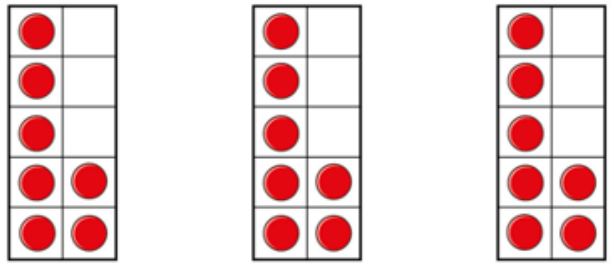
a)



There are ☐ equal groups of 10

There are ☐ tens.

a)



There are ☐ equal groups with ☐

in each group.

There are _____ equal groups of _____ .

_____ + _____ + _____ + _____ + _____ + _____ = _____

Arrays

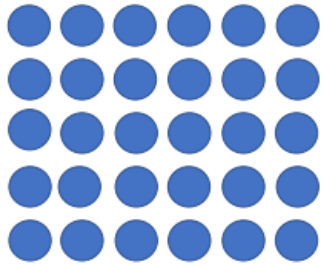
True or False ?

Use array

All of the number sentences can be used to find the total of the array.

$5 + 5 + 5 + 5 + 5 + 5$

$6 + 6 + 6 + 6 + 6$



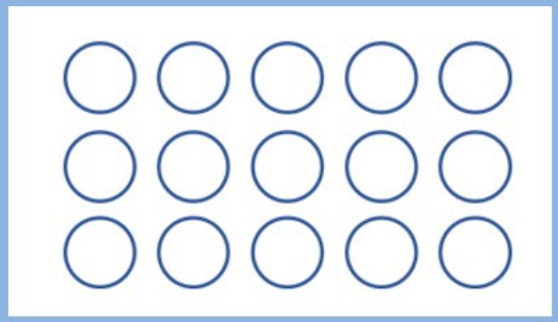
6 lots of 5

5 lots of 6

$3 \times 5 + 3 \times 5$

$2 \times 5 + 2 \times 5 + 2 \times 5$

Share It

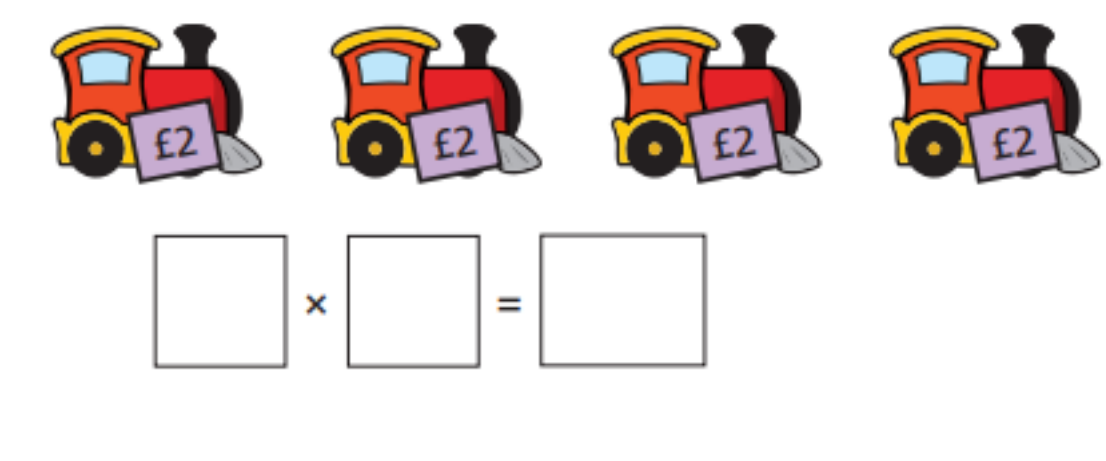


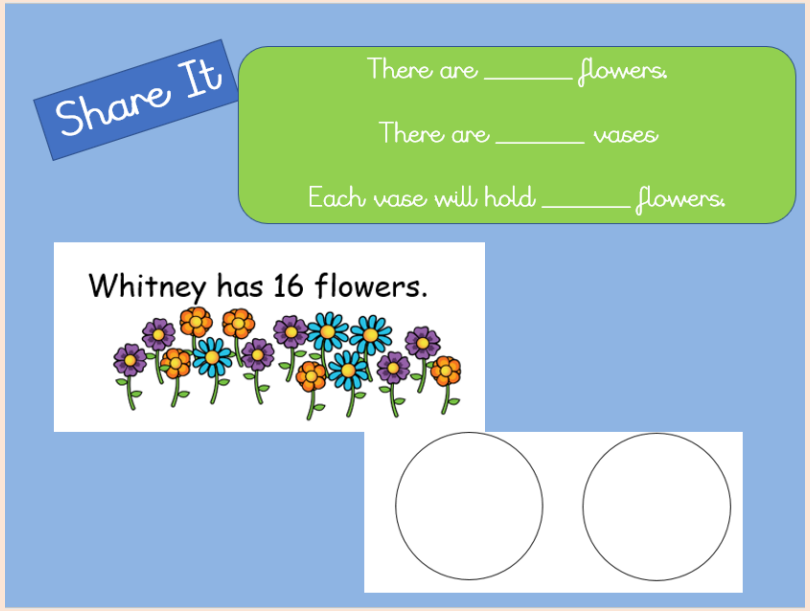
What array can we see?

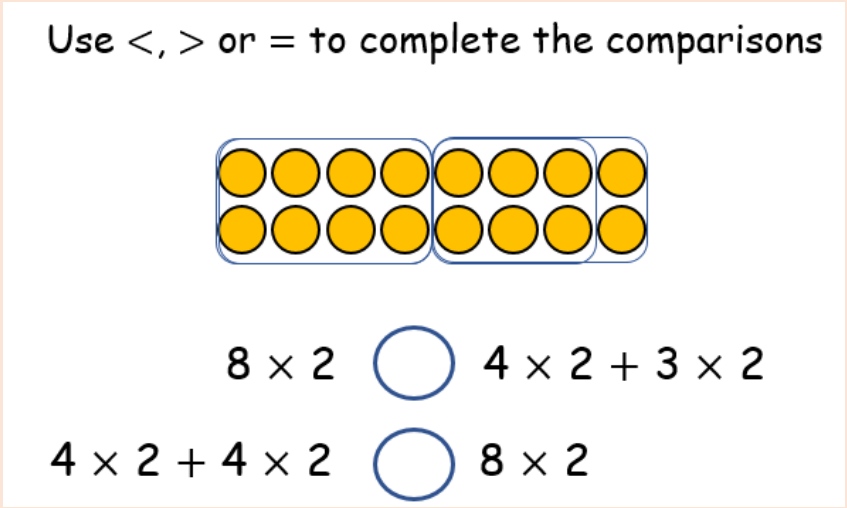
What addition number sentence can we see?

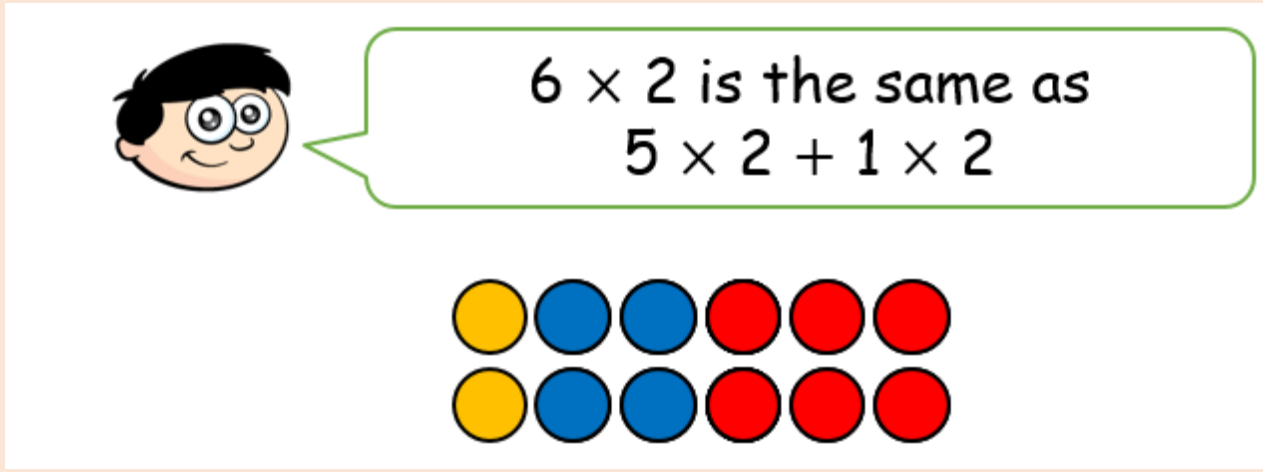
What multiplication number sentence can we see?

Reasoning


£2
£2
£2
£2
×
=

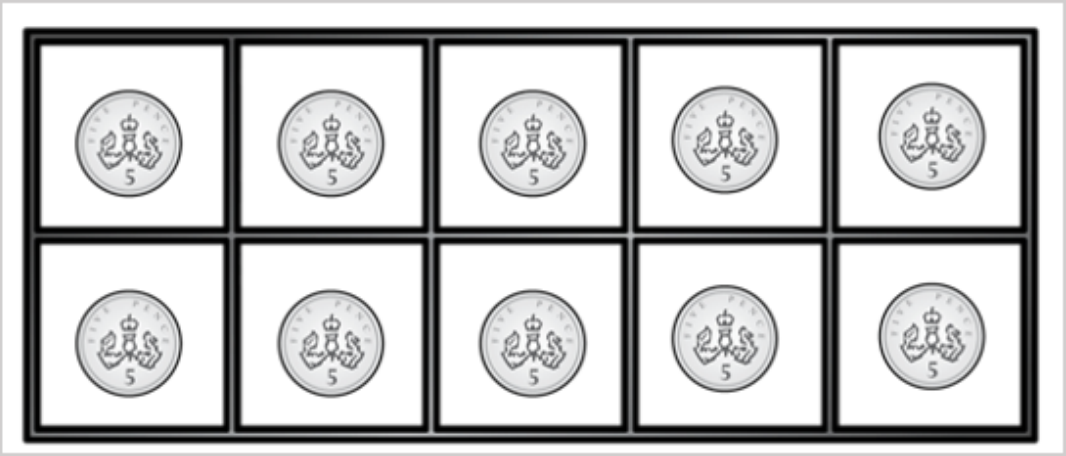

Share It
There are _____ flowers.
There are _____ vases
Each vase will hold _____ flowers.
Whitney has 16 flowers.

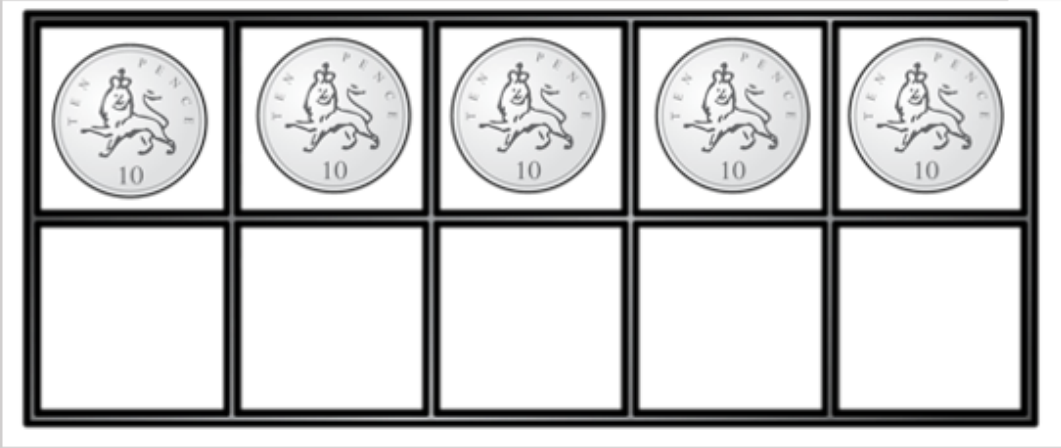

Use <, > or = to complete the comparisons
8 × 2
4 × 2 + 3 × 2
4 × 2 + 4 × 2
8 × 2


6 × 2 is the same as
5 × 2 + 1 × 2

WALT: multiply by 10

What's the same? What's different?





5	5	5	5	5	5	5	5	5	5

10	10	10	10	10

1 bar model shows 10 groups of 5 and the other bar model shows 5 groups of 10. Which is which?

10 groups of 5 = 5 groups of 10

$$10 \times 5 = 5 \times 10$$

Commutative Law

How do we teach children to remember times tables?

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Step counting in 3s

Arithmetic

1) 57 – 16 = ?
2) 56 – 33 = ?
3) ? = 45 – 15
4) ? = 60 - 20
5) 35 + 5 + 17 =
6) 52 + 8 + 10 =
7) 24 + 16 =
8) 32 + 18 =
9) 7 × 2 =
10) 10 × 3 =

1. 30 × 40 =
2. 700 × 5 =
3. _____ = 1000 – 945
4. _____= 850 + 950
5. 6 × 9 =
6. 9.07 × 100 =
7. 5.67 + 3.1 =
8. 8000 – 99 =

1. 5327 - 2146 =
2. 4180 – 685 = (What is the best method?)
3. 4700 ÷ 100 =
4. 5175 + 1652 =
5. CXVII + ___ = 300
6. 24 32 ___ ___ ___
7. -6 + 14 =
8. 8 x 7 =

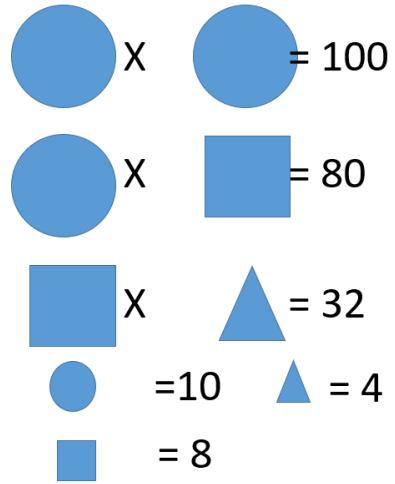
Arithmetic

1) 35 x _____ = 3,500
2) 36, 256 rounded to the nearest 10 =
3) 6,324 + 45,321 =
4) 2565 +_____ = 5000
5) 67 x 4 =
6) 450 = 550 - _____
7) 10,000 – 4,813 =
8) 8 x _____ = 96

7 × ☐ = 4 × 21

Arithmetic
15.03.22

1. 180 = 173 + 7
2. £1.72 p + 25p = £1.97
3. £11.32 – £2.12p = £9.10
4. 10 x 8 = 80
5. 25 x 3 = 75
6. 45 ÷ 5 = 9
7. 346 - 122 = 224
8. 532 + 84 = 616

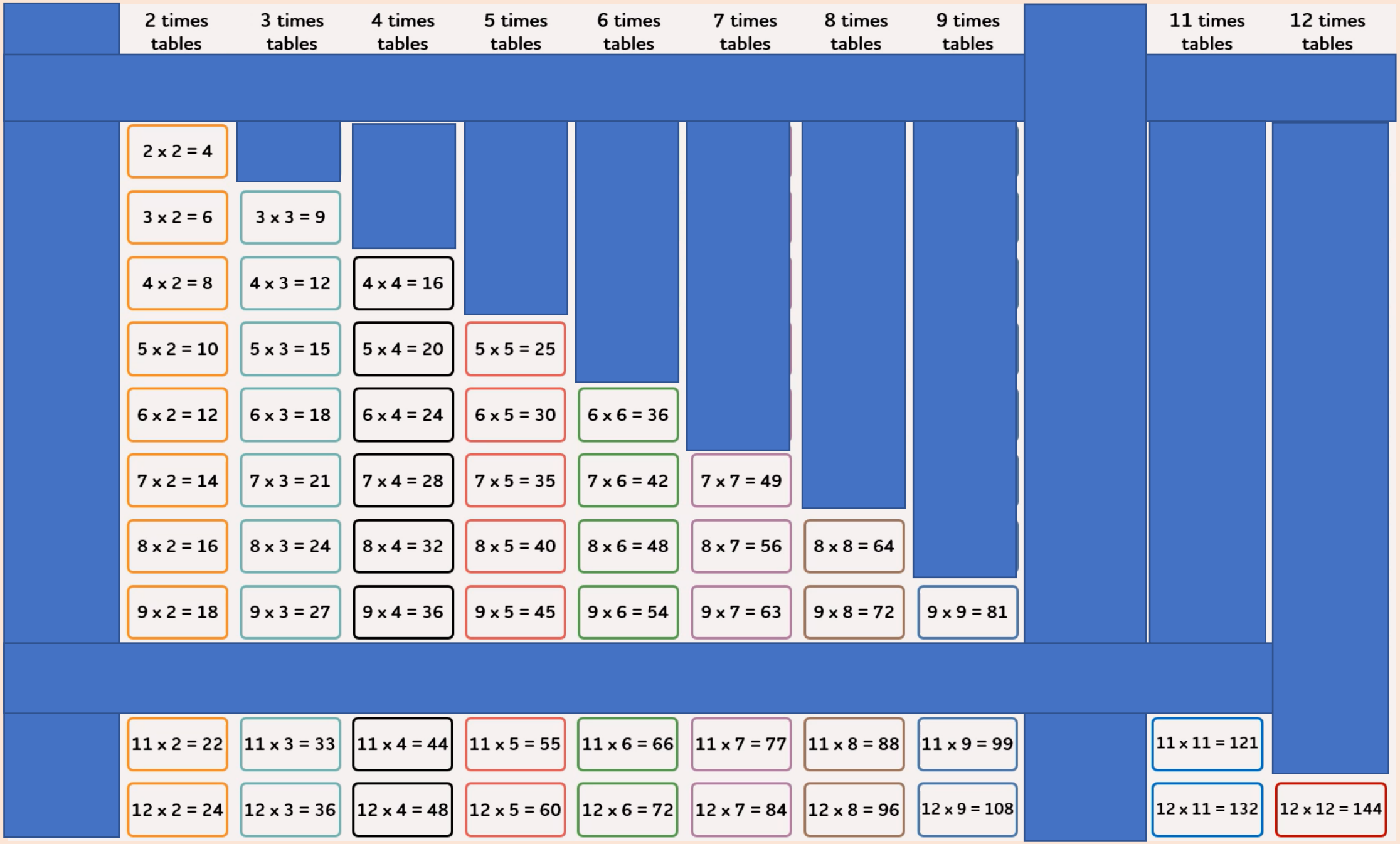


Rehearsal tests

2	
6 x 3 = _____	3 x 6 = _____
2 x 6 = _____	30 ÷ 6 = _____
30 ÷ 5 = _____	4 x 6 = _____
6 x 2 = _____	36 ÷ 6 = _____
6 x 2 = _____	5 x 6 = _____
5 x 6 = _____	2 x 6 = _____
6 x 5 = _____	6 x 5 = _____
12 ÷ 2 = _____	6 x 6 = _____
4 x 6 = _____	18 ÷ 3 = _____
4 x 6 = _____	4 x 6 = _____
3 x 6 = _____	6 x 2 = _____
24 ÷ 6 = _____	6 x 2 = _____
3 x 6 = _____	6 x 6 = _____
2 x 6 = _____	6 x 4 = _____
6 x 3 = _____	12 ÷ 6 = _____
6 x 5 = _____	6 x 6 = _____
5 x 6 = _____	6 x 4 = _____
18 ÷ 6 = _____	24 ÷ 4 = _____
6 x 4 = _____	6 x 3 = _____
5 x 6 = _____	2 x 6 = _____

1 times tables	2 times tables	3 times tables	4 times tables	5 times tables	6 times tables	7 times tables	8 times tables	9 times tables	10 times tables	11 times tables	12 times tables
1 x 1 = 1	1 x 2 = 2	1 x 3 = 3	1 x 4 = 4	1 x 5 = 5	1 x 6 = 6	1 x 7 = 7	1 x 8 = 8	1 x 9 = 9	1 x 10 = 10	1 x 11 = 11	1 x 12 = 12
2 x 1 = 2	2 x 2 = 4	2 x 3 = 6	2 x 4 = 8	2 x 5 = 10	2 x 6 = 12	2 x 7 = 14	2 x 8 = 16	2 x 9 = 18	2 x 10 = 20	2 x 11 = 22	2 x 12 = 24
3 x 1 = 3	3 x 2 = 6	3 x 3 = 9	3 x 4 = 12	3 x 5 = 15	3 x 6 = 18	3 x 7 = 21	3 x 8 = 24	3 x 9 = 27	3 x 10 = 30	3 x 11 = 33	3 x 12 = 36
4 x 1 = 4	4 x 2 = 8	4 x 3 = 12	4 x 4 = 16	4 x 5 = 20	4 x 6 = 24	4 x 7 = 28	4 x 8 = 32	4 x 9 = 36	4 x 10 = 40	4 x 11 = 44	4 x 12 = 48
5 x 1 = 5	5 x 2 = 10	5 x 3 = 15	5 x 4 = 20	5 x 5 = 25	5 x 6 = 30	5 x 7 = 35	5 x 8 = 40	5 x 9 = 45	5 x 10 = 50	5 x 11 = 55	5 x 12 = 60
6 x 1 = 6	6 x 2 = 12	6 x 3 = 18	6 x 4 = 24	6 x 5 = 30	6 x 6 = 36	6 x 7 = 42	6 x 8 = 48	6 x 9 = 54	6 x 10 = 60	6 x 11 = 66	6 x 12 = 71
7 x 1 = 7	7 x 2 = 14	7 x 3 = 21	7 x 4 = 28	7 x 5 = 35	7 x 6 = 42	7 x 7 = 49	7 x 8 = 56	7 x 9 = 63	7 x 10 = 70	7 x 11 = 77	7 x 12 = 84
8 x 1 = 8	8 x 2 = 16	8 x 3 = 24	8 x 4 = 32	8 x 5 = 40	8 x 6 = 48	8 x 7 = 56	8 x 8 = 64	8 x 9 = 72	8 x 10 = 80	8 x 11 = 88	8 x 12 = 96
9 x 1 = 9	9 x 2 = 18	9 x 3 = 27	9 x 4 = 36	9 x 5 = 45	9 x 6 = 54	9 x 7 = 63	9 x 8 = 72	9 x 9 = 81	9 x 10 = 90	9 x 11 = 99	9 x 12 = 108
10 x 1 = 10	10 x 2 = 20	10 x 3 = 30	10 x 4 = 40	10 x 5 = 50	10 x 6 = 60	10 x 7 = 70	10 x 8 = 80	10 x 9 = 90	10 x 10 = 100	10 x 11 = 110	10 x 12 = 120
11 x 1 = 11	11 x 2 = 22	11 x 3 = 33	11 x 4 = 44	11 x 5 = 55	11 x 6 = 66	11 x 7 = 77	11 x 8 = 88	11 x 9 = 99	11 x 10 = 110	11 x 11 = 121	11 x 12 = 131
12 x 1 = 12	12 x 2 = 24	12 x 3 = 36	12 x 4 = 48	12 x 5 = 60	12 x 6 = 72	12 x 7 = 84	12 x 8 = 96	12 x 9 = 108	12 x 10 = 120	12 x 11 = 132	12 x 12 = 144

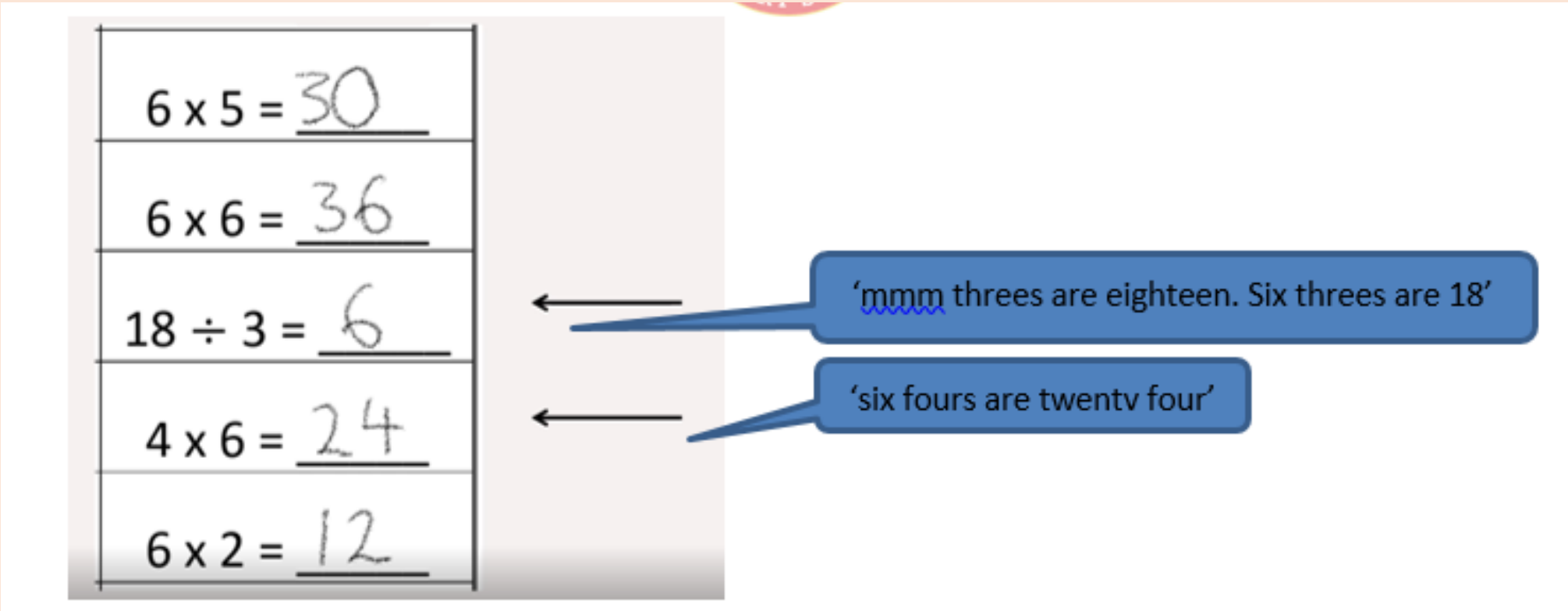
144 facts


2 times tables
3 times tables
4 times tables
5 times tables
6 times tables
7 times tables
8 times tables
9 times tables
11 times tables
12 times tables
2 x 2 = 4
3 x 2 = 6
3 x 3 = 9
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
7 x 2 = 14
7 x 3 = 21
7 x 4 = 28
7 x 5 = 35
7 x 6 = 42
7 x 7 = 49
8 x 2 = 16
8 x 3 = 24
8 x 4 = 32
8 x 5 = 40
8 x 6 = 48
8 x 7 = 56
8 x 8 = 64
9 x 2 = 18
9 x 3 = 27
9 x 4 = 36
9 x 5 = 45
9 x 6 = 54
9 x 7 = 63
9 x 8 = 72
9 x 9 = 81
11 x 2 = 22
11 x 3 = 33
11 x 4 = 44
11 x 5 = 55
11 x 6 = 66
11 x 7 = 77
11 x 8 = 88
11 x 9 = 99
11 x 11 = 121
12 x 2 = 24
12 x 3 = 36
12 x 4 = 48
12 x 5 = 60
12 x 6 = 72
12 x 7 = 84
12 x 8 = 96
12 x 9 = 108
12 x 11 = 132
12 x 12 = 144

55 Facts

Marking the test

It is in marking the tests together that the children are ‘trained’ to automatically refer to the fact as one of the 36 essential facts and apply their knowledge of the commutative law to ‘flip’ the fact so that it becomes one of the 36 facts we learn.



In this order…

- The order in which times tables should be introduced is:
- 2 x table
- 10 x table
- 5 x table
- 3 x table
- 4 x table
- 8 x table
- 6 x table
- 9 x table
- 7 x table
- 11 x table
- 12 x table

Helping at home

Spellings


ESSENTIALspelling
Year 6
Year 5
Year 4
Year 3
Year 2
Herts for Learning

What do we use?

- We use ESSENTIAL spellings
- This spelling resource is different to other spelling schemes. It focuses more on the teaching of spelling so that children understand how to apply patterns, strategies and knowledge to other words and not just a list of words given for that week.
- It also provides links to prior knowledge and tracks back to related objectives so that teachers can give targeted support to children who are not yet able to spell words from their year group programme of study.
- **ESSENTIALspelling** empowers children to build words- they are shown how to become spellers for life, rather than remember spellings for a week.

Why do we recap phonics and previous rules taught?

- **ESSENTIALspelling** places an emphasis on the ***Review*** stage of the teaching sequence. This is not ‘what did we learn last week?’ but instead: “What do we already know that might help us to spell words in this sequence?” which gives pupils the chance to build connections between existing knowledge and new knowledge
- Our Phonics Scheme of Little Wandle links with ESSENTIAL spelling to continue with phonics which helps spell 25% of their words. This provides consistency through their spelling journey.

How do we learn the new rules?

- The children follow the scheme in the order that the rules are presented – following on from the previous year and using guidance from the National Curriculum
- The ***Practise*** and ***Apply*** sections give children the opportunity to rehearse spelling patterns and use them in context.
- Then there are two further sections: ***Minor Gaps*** and ***Major Gaps***. Every sequence shows teachers how to support the children who have small gaps in their previous learning -as well as those who have not secured the foundations needed for any given sequence
- The ***Practise*** sections suggest activities that can be undertaken independently by children during the lesson or even at home. The emphasis here is on exploration and word building, rather than practising a prescribed list of words.
- The ***Apply*** sections follow a regular pattern of children discussing their learning and spelling words in the context of short dictations. There might be a suggestion of an extended writing activity to challenge the children to choose and use words independently and in context.

How can children practise their spellings?

- There are a range of activities children can use to practise spellings
- Pattern spotting
- Add the correct suffix or prefix
- Putting words into sentences
- Word families and classes

Practise, Explore, Investigate

Use root and suffix cards to build words (these include some of the statutory spellings). "Which words can use several of the suffixes? Can any use more than one at once?"

Can the children create pairs of antonyms, e.g. *merriment / misery; penniless / wealthy*, to show their understanding of these words?

embarrass	immediate	mischievous	beauty	*-ment*
worth	conscious	thorough	sincere	*-less*
govern	harass	decisive	busy	*-ness*
frequent	serious	environ	hope	*-ly*
use	weary	forget	content	*-ful*

Phonics

Phonics at Pucklechurch

- We follow a phonics scheme called Little Wandle
- This follows a process similar to Essential Spellings Review, Teach, Practise, Apply
- Children practise applying their phonics sounds to their reading and writing
- Phonics sounds are broken up into 6 phases which are taught at different parts throughout the year
- We use ‘grow the code’ to help children choose the correct phoneme

Phase 2

Learning phonemes to read and write simple words

- **Children will learn their first 19 phonemes:**

  Set 1: s a t p **Set 2**: i n m d

  Set 3: g o c k **Set 4:** ck (as in duck) e u r

  Set 5: h b l f ff (as in puff) ll (as in hill) ss (as in hiss)

- **They will use these phonemes to read and spell simple "consonant-vowel-consonant" (CVC) words:**

  sat, tap, dig, duck, rug, puff, hill, hiss

All these words contain 3 phonemes.

Phoneme frame and sound buttons

c	a	t

. . .

f	i	sh

. . —

Phase 3

Learning the long vowel phonemes

- **Children will enter phase 3 once they know the first 19 phonemes and can blend and segment to read and spell CVC words.**
- **They will learn another 26 phonemes:**
- **j, v, w, x, y, z, zz, qu**
- **ch, sh, th, ng, ai, ee, igh, oa, oo, ar, or, ur, ow, oi, ear, air, ure, er**
- **They will use these phonemes (and the ones from Phase 2) to read and spell words:**

chip, shop, thin, ring, pain, feet, night,
boat, boot, look, farm, fork, burn,
town, coin, dear, fair, sure

Phase 4

Introducing consonant clusters: reading and spelling words with four or more phonemes

- Children move into phase 4 when they know all the phonemes from phases 2 and 3 and can use them to read and spell simple words (blending to read and segmenting to spell).
- Phase 4 doesn't introduce any new phonemes.
- It focuses on reading and spelling longer words with the phonemes they already know.
- These words have **consonant clusters** at the beginning: **spot, trip, clap, green, clown**

…or at the end: **tent, mend, damp, burnt**

…or at the beginning and end! **trust, spend, twist**

Phase 5

- **Teach new graphemes for reading**

•ay, ou, ie, ea, oy, ir, ue, aw, wh, ph, ew, oe, au,

a-e, e-e, i-e, o-e, u-e

Learn alternative pronunciations of graphemes (the same grapheme can represent more than one phoneme):

Fin/find, hot/cold, cat/cent, got/giant, but/put, cow/blow, tie/field, eat/bread, farmer/her, hat/what, yes/by/very, chin/school/chef, out/shoulder/could/you.

Learning all the variations!

Learning that the same phoneme can be represented in more than one way:

burn

first

term

heard

work

Learning all the variations!

Learning that the same grapheme can represent more than one phoneme:

meat bread

he bed

bear hear

cow low

Teaching the split digraph

tie time

toe tone

cue cube

pie pine

Phase 6

- Phase 6 focuses on spellings and learning rules for spelling alternatives. Children look at syllables, base words, analogy and mnemonics.

- Children might learn about past tense, rules for adding ‘ing’ and irregular verbs