

Number Facts

Key Stage One Parent Workshop

Goldsworth Primary School

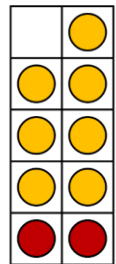
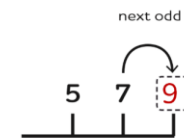
Wednesday 25.01.23 & Thursday 26.01.23



2	3	4	5	6	7	8	9	10
$0+2=2$ $1+1=2$ $2+0=2$	$0+3=3$ $1+2=3$ $2+1=3$ $3+0=3$	$0+4=4$ $1+3=4$ $2+2=4$ $3+1=4$ $4+0=4$	$0+5=5$ $1+4=5$ $2+3=5$ $3+2=5$ $4+1=5$ $5+0=5$	$0+6=6$ $1+5=6$ $2+4=6$ $3+3=6$ $4+2=6$ $5+1=6$ $6+0=6$	$0+7=7$ $1+6=7$ $2+5=7$ $3+4=7$ $4+3=7$ $5+2=7$ $6+1=7$ $7+0=7$	$0+8=8$ $1+7=8$ $2+6=8$ $3+5=8$ $4+4=8$ $5+3=8$ $6+2=8$ $7+1=8$ $8+0=8$	$0+9=9$ $1+8=9$ $2+7=9$ $3+6=9$ $4+5=9$ $5+4=9$ $6+3=9$ $7+2=9$ $8+1=9$ $9+0=9$	$0+10=10$ $1+9=10$ $2+8=10$ $3+7=10$ $4+6=10$ $5+5=10$ $6+4=10$ $7+3=10$ $8+2=10$ $9+1=10$ $10+0=10$

Number Bonds

$$7 + 2 = 9$$



Aims

- To share how we teach maths in school
- Explain which number facts need to be learnt
- Share games and strategies to help your child derive, learn and recall number facts

Attitude to maths

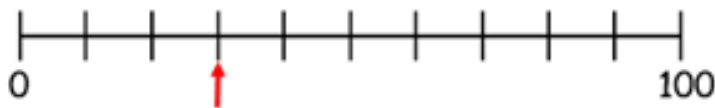


How do we teach Mathematics in Key stage 1

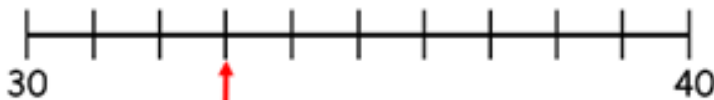
- Fluency
- Review
- Vocabulary
- Discover/learning chunk 1
- Independent task (practise)

Fluency

1) What number is the arrow pointing to?



2) What number is the arrow pointing to?



3) Use $<$, $>$ or $=$ to compare the objects.



4) $4 \text{ tens} + 3 \text{ ones} =$



Every maths lesson starts with a fluency task.

It builds mental recall and is often a review of what has gone before.

It can be a pre-rehearsal ready for that lesson.



Review

Review

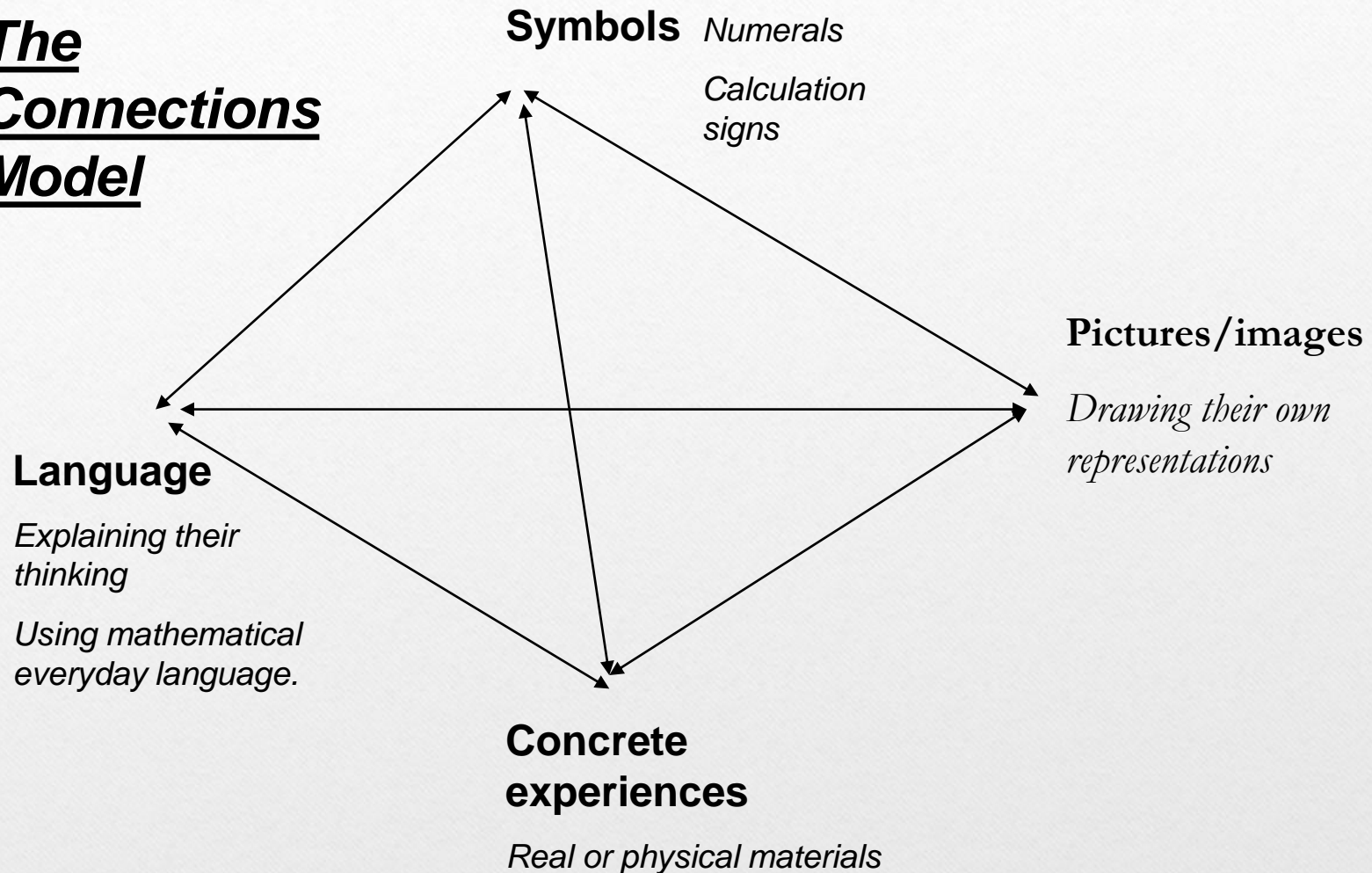
Are the number sentences true or false?
Circle your answer.

a) $17 + 1 = 1 + 17$ true false

b) $17 - 1 = 1 - 17$ true false

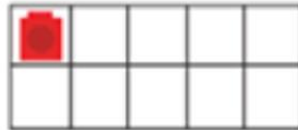
Every lesson will have a review of prior learning. This could be consolidating the use of a method/strategy or it could be an opportunity to address a misconception.

The Connections Model

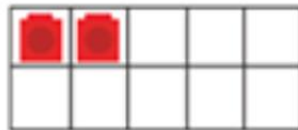


Children need all
4 experiences
in order to build connections

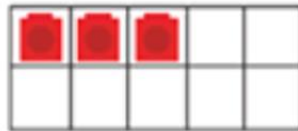
Concrete, Pictorial, Abstract



1



2



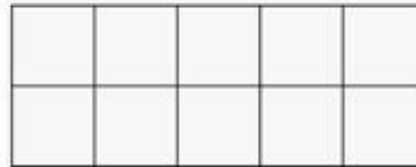
3



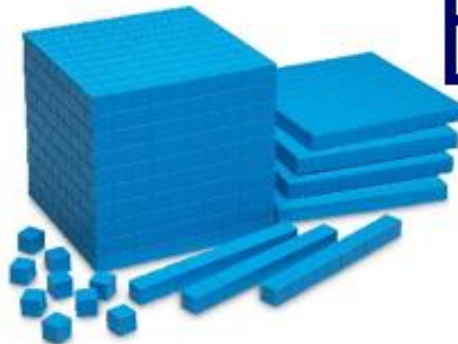
4

Concrete resources

Tens	Ones



1000	2000	3000	4000	5000	6000	7000	8000	9000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009



Vocabulary

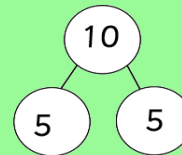
– subtract minus
takeaway less

Key Models

number sentence

— - — = —

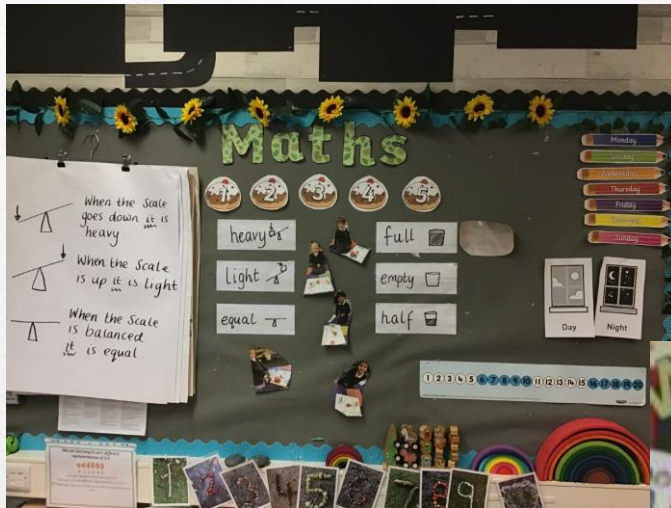
part-whole
model



Place Value Chart column

Tens	Ones
1	3

1	2
+	1
1	3



Discover

What can you see?



a) Anna takes the eggs that she needs.
How many eggs are left?

b) Then Seth takes the eggs that he needs.
How many eggs are left?

This part of the lesson gives children the opportunity to explore the new mathematical concept being taught.

The teacher will guide and facilitate the children's learning, encouraging the use of resources, and will be gauging children's current understanding.

Guided Practice

24. 1 1. 2 2

WALT subtract a 2-digit number

I can see _____ eggs.

a) _____ = _____

T	O
---	---

There are _____ eggs left.

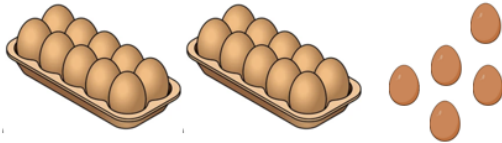
b) _____ = _____

There are _____ eggs left now.

Maths task board:

Draw a margin					
24.11.22					
Stick in the problem.	<p style="font-size: small;">WALT: add 2 digit numbers.</p>				
Anna takes 10 eggs.	<table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="width: 50%;">Tens</td> <td style="width: 50%;">Ones</td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </table> <p>____ - 10 = ____</p> <p>Show the number of eggs on your place value chart.</p> <p>Cross out Anna's amount.</p>	Tens	Ones		
Tens	Ones				
How many eggs are left?					
Seth takes 2 eggs.	<p>____ - 2 = ____</p> <p>Cross out Seth's amount.</p>				
How many eggs are now left?					
There are _____ eggs left.					
Draw this on a number line.					

Independent Practice



a) Anna takes 10 eggs. How many are left?

$$\underline{\quad} - 10 = \underline{\quad}$$

There are $\underline{\quad}$ eggs left.

Tens	Ones

b) Seth takes 3 eggs. How many are left?

$$\underline{\quad} - 3 = \underline{\quad}$$

There are $\underline{\quad}$ eggs left.

Tens	Ones

a) Work out

$$44 - 13$$

$$44 - 31$$

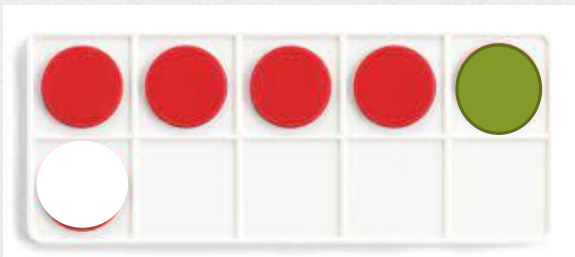
b) What is the same?

What is different?

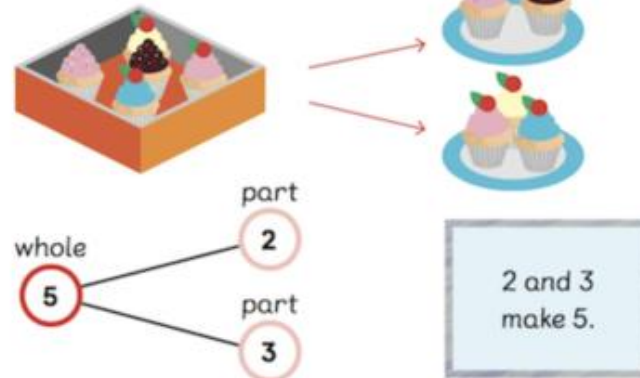
The children have the opportunity to solve a similar problem linked to the previous task.

Number bonds

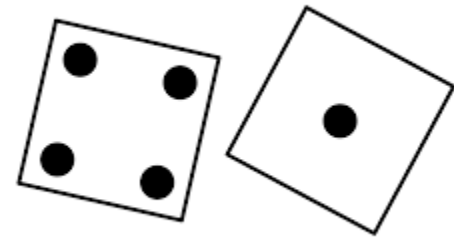
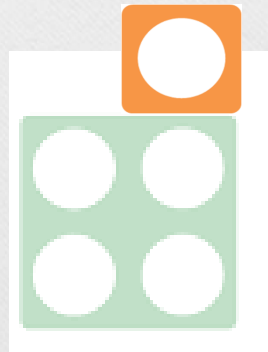
Number bonds show how numbers are split or combined



- 1 Put 5 cupcakes on two plates.



This is a number bond.



Progression of Number Facts

Reception	Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Year 1	Represent and use number bonds within 20 Represent and use subtraction facts within 20
Year 2	Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. Recall doubles and halves to 20 Recall and use multiplication and division facts for the 2, 5 and 10 times tables
Year 3	Recall and use multiplication and division facts for the 3, 4 and 8 times tables

What helps children to memorise facts?

- Written
- Visual
- Kinaesthetic
- Pattern
- Aural

$$3 + 4 =$$



Looking for patterns..

$$0+7=7$$

$$1+6=7$$

$$2+5=7$$

$$3+4=7$$

$$4+3=7$$

$$5+2=7$$

$$6+1=7$$

$$7+0=7$$

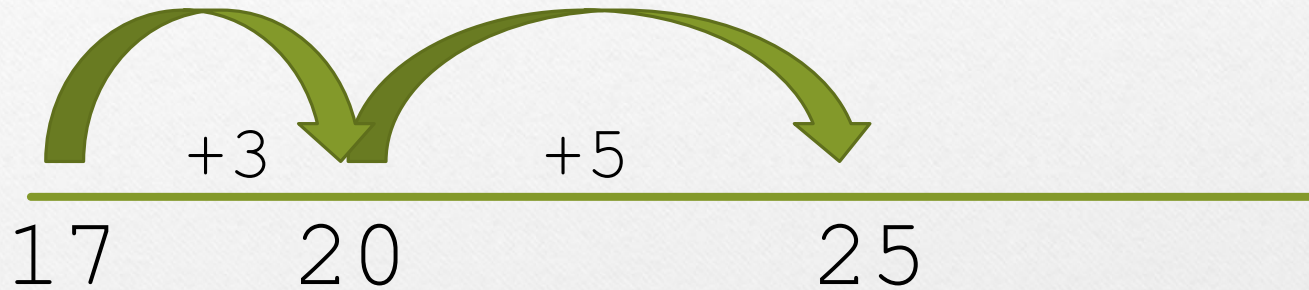
What do you
notice?

What's the same?

What's different?

Bridging up or down to 10

$$17+8=$$



$$32-7=$$



Fact Family

$$4+3=7$$

$$7-3=4$$

$$7-4=3$$

$$3=7-4$$

$$7=3+4$$

$$3+4=7$$

Equivalent facts

$$5+2=7$$

$$6+1=7$$

$$7=0+7$$

$$2+2+3=7$$

Nearby facts

$$4+4=8$$

$$3+3=6$$

$$3+5=8$$

$$8=5+3$$

Place value

$$30+40=70$$

$$300+400=700$$

$$0.4+0.3=0.7$$

Games to play

- Throw and catch
- Bingo
- Pairs
- How many in 1 minute?
- Shut the box
- Number bond Snap



Other tips...

- Positive attitude
- Little and often
- Make it fun- do maths!
- Use what you know
- Play counting games and board games
- Sing number songs
- Enjoy number stories
- Cooking
- Spot numbers and patterns in the environment.

Aims

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Thank you for coming.
Please complete the evaluation.