"Big Maths"

What is “Big Maths?”

- A good system to ensure that key number facts are taught and applied systematically at the right times across the school in line with the 2014 Framework for Maths.
- Will help us ensure that all children have solid recall of key number facts by end of Yr 4.
- Structured program with 2 different fun challenges that children complete weekly outside the daily maths hour.
- Big Maths helps to develop speed, instant recall and application of number facts.

Key "Maths Essentials" – Addition Facts

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

Reception
Year 1
Year 2

“Maths Essentials” Addition Timetable

Reception

T1+2	1+1=2 2+2=4
T3+4	3+3=6 4+4=8 5+5=10
T5+6	2+1=3 2+3=5

Year 1

T1+2	1+9=10 2+8=10 3+7=10 4+6=10
T3+4	4+2=6 5+2=7 6+2=8 7+2=9 8+2=9 9+2=11 4+3=7 5+3=8 6+3=9
T5+6	6+6=12 7+7=14 8+8=16 9+9=18

Year 2

T1+2	4+7=11 4+9=11 4+8=12 3+8=11 3+9=12
T3+4	5+4=9 5+6=11 6+7=13 8+7=15 8+9=17
T5+6	5+7=12 5+8=13 6+8=14 5+9=14 6+9=15 7+9=16

Key "Maths Essentials" – Multiplication Facts

Reception – Counting in 10s, 5s and 2s

Year 1 – Counting in 10s, 5s and 2s

Year 2 – x2, x5, x10

Year 3 – x3, x4, x8

Year 4 – x6, x7, x9 , (x11, x 12)*

Year 5 and 6 – Plugging Gaps and Focus on speed of recall and application

This Year, Year 4 will not focus on x11 and x12, however we will all need to look back to at least the year before to ensure children are secure.

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

How do we achieve this?

- Through giving regular opportunities for all children to rehearse key number facts in the widest range of contexts in a progressive way.

- By ensuring children have regular opportunities for counting, applying, over-learning and recalling key facts

- Giving children regular opportunities to recall facts at speed (Beat That! Challenges) and apply learning to a range of contexts at their level (CLIC tests).

Beat That Challenges...

- To be done once a week outside of the maths hour –
- Weekly timed quiz that assesses the speed of recall for key addition and multiplication facts
- Currently the Foundation stage work practically on their number recall
- Children mark their own work
- Children are competing only against their previous score.
- Completed quizzes to be sent home
- Sound Jingles are used to motivate children and time the activity. 

Name:

My 'Beat That' score was...

BIG MATHS... BEAT THAT!

Year 1 - 30 seconds

9 + 9 =	8 + 8 =	2 + 8 =
3 + 7 =	6 + 2 =	6 + 6 =
5 + 2 =	7 + 7 =	7 + 2 =
6 + 3 =	4 + 3 =	1 + 9 =
9 + 2 =	5 + 5 =	4 + 2 =
4 + 6 =		5 + 3 =

Y1
1

Name:

My 'Beat That' score was...

Year 2 - 90 seconds

BIG MATHS... BEAT THAT!

4+9=	7x5=	6+7=	8+9=	4+7=
3x5=	7+8=	8x5=	9x10=	6x10=
9x2=	5x5=	5+9=	5+8=	5+7=
6+9=	5x10=	2x2=	3+9=	4x5=
9x5=	8x2=	4x10=	2x5=	6+8=
2x10=	7x10=	7+9=	7x2=	8x10=
6x2=	4x2=	3x2=	5x2=	6x5=
5+4=	3x10=	3+8=	5+6=	4+8=

Y2
1

Name:

My 'Beat That' score was...

Year 3 - 60 seconds

BIG MATHS... BEAT THAT!

7x3=	2x4=	3x3=
9x9=	7x9=	7x4=
8x4=	3x4=	2x3=
9x3=	5x3=	9x4=
4x9=	8x9=	4x3=
6x9=	3x9=	6x4=
8x3=	5x4=	6x3=
2x9=	4x4=	5x9=

Name:

My 'Beat That' score was...

BIG MATHS... BEAT THAT!

Year 4 - 60 seconds

5+5=	9+3=	8+8=	3+2=	8+7=	4+4=
7+3=	8x8=	9+4=	6x7=	6+5=	7+7=
5+4=	6+2=	7+2=	7+5=	8+5=	8+3=
9+2=	9+5=	6x6=	7x8=	9+6=	5+2=
8+6=	6x8=	7+4=	6+6=	2+2=	7+6=
4+2=	9+8=	7x7=	6+4=	8+4=	9+9=
5+3=	3+3=	9+7=	8+2=	4+3=	6+3=

Name:

My 'Beat That' score was...

BIG MATHS... BEAT THAT!

Year 5 & 6 - 100 seconds

3+2=	6x2=	7+5=	8x2=	8+3=	5+4=	9+4=	4x2=
7+4=	6+6=	9x7=	9+2=	7x2=	5+5=	6x3=	6+4=
7x6=	4x3=	4+4=	8x5=	8+2=	8+4=	9+6=	4x4=
9x9=	4+3=	9+3=	3x3=	5x2=	6+2=	5x5=	8x6=
5+2=	5+3=	2+2=	8+5=	9x5=	9+5=	8+7=	6x5=
6+5=	7x7=	9x6=	6x6=	4+2=	7x5=	9+7=	9x3=
7x3=	7+6=	7+2=	3x2=	9+8=	6+3=	9x4=	5x3=
8x4=	8x3=	9x8=	8x7=	8x8=	7+7=	9x2=	6x4=
3+3=	7+3=	8+6=	8+8=	2x2=	9+9=	5x4=	7x4=

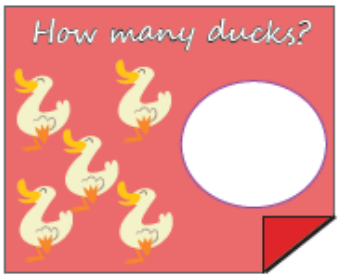
Y5,6
1

CLIC Tests

- In addition to weekly “Beat That!” challenges, we also give children CLIC tests to show that they can apply the number facts learnt *at their own level*.
- Differentiated quizzes for each National Curriculum level.
- These are done on a different day to the “Beat That!” challenges – again outside of the daily numeracy lesson.
- Not timed – take about 15 mins to complete.

Name: _____

BIG MATHS BEAT THAT!



Write these numbers in order

8	2	4

One more than 3 is?

Double 4 is

6 + ☐ = 10

5 take away 3 is...

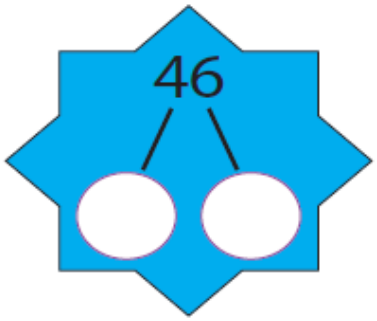
3 + 6 =

Half of 8 is...

L1 1

Name: _____

BIG MATHS BEAT THAT!



Write out the factor family for:

8 + 6 = 14	

30 + 40 =

Draw a ring around the **odd** numbers

46 71 19 8

3 x 4 =

Double 9 is

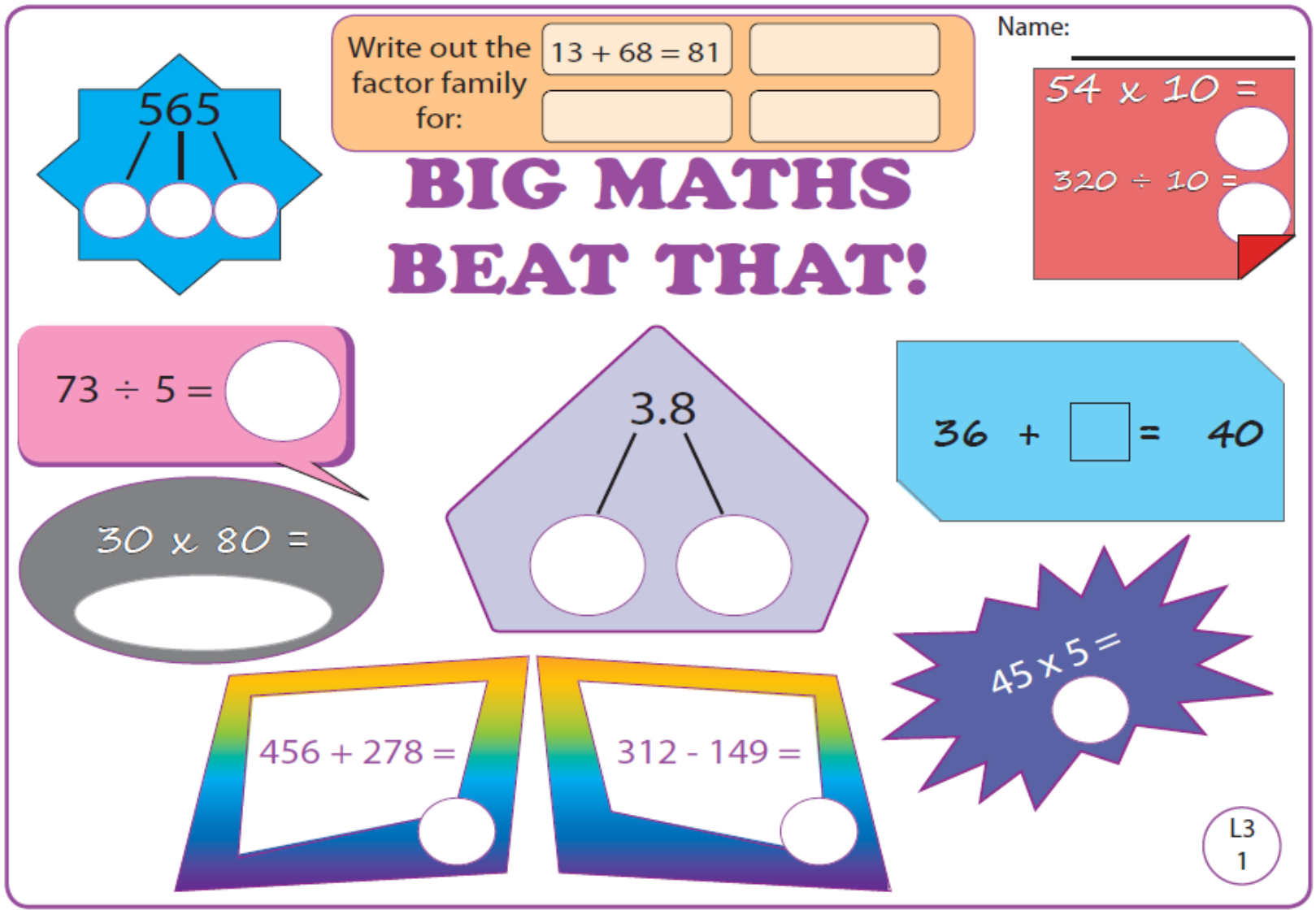
36 + ☐ = 40

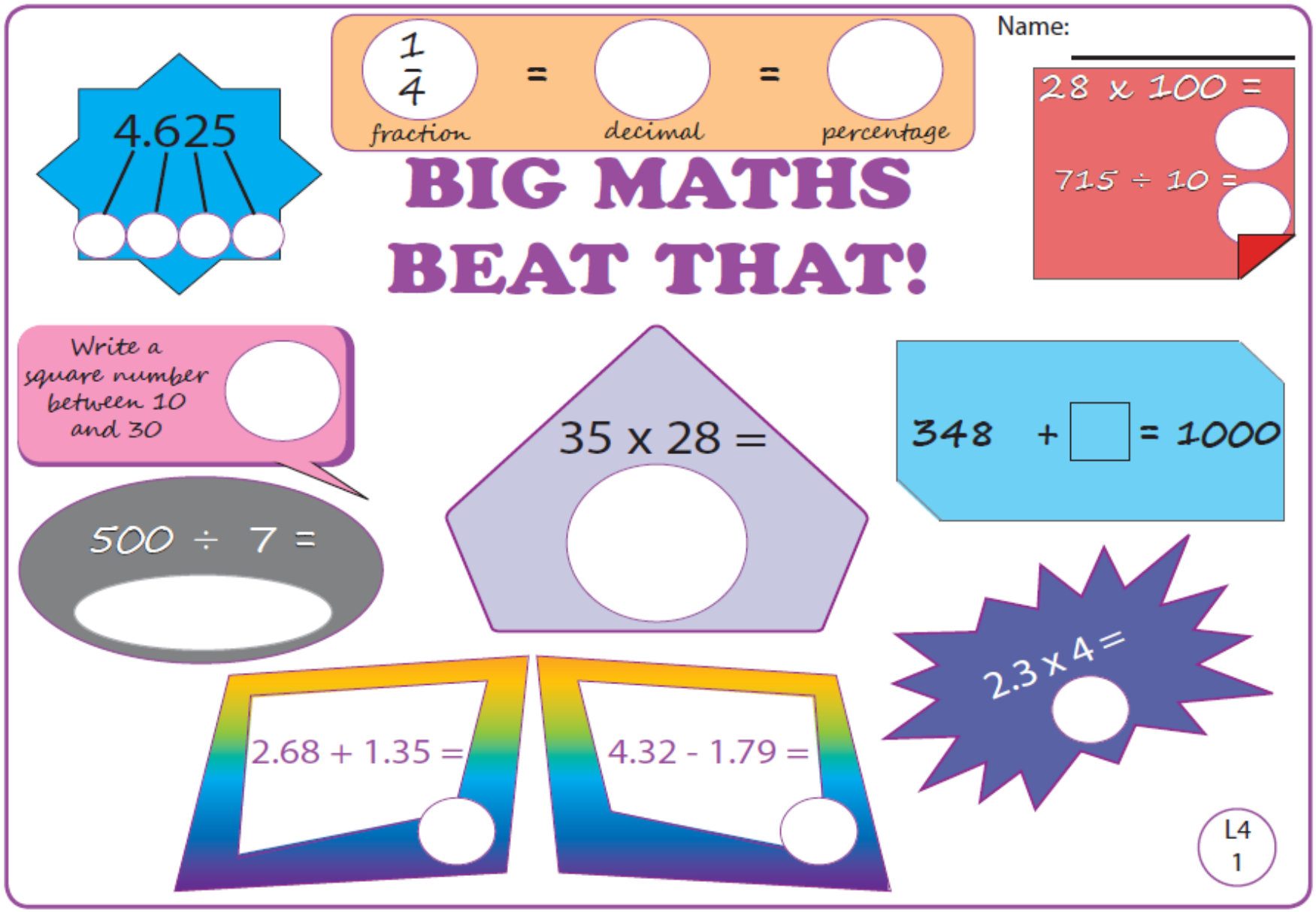
36 + 7 =

65 - 7 =

Half of 16 is...

L2
1


Name:
Write out the factor family for:
13 + 68 = 81
565
BIG MATHS
BEAT THAT!
54 x 10 =
320 ÷ 10 =
73 ÷ 5 =
30 x 80 =
3.8
36 + □ = 40
45 x 5 =
456 + 278 =
312 - 149 =
L3
1


4.625
1/4 = =
fraction
decimal
percentage
Name:
28 x 100 =
715 ÷ 10 =
BIG MATHS
BEAT THAT!
Write a square number between 10 and 30
500 ÷ 7 =
35 x 28 =
348 + □ = 1000
2.3 x 4 =
2.68 + 1.35 =
4.32 - 1.79 =
L4
1

Name: _____

BIG MATHS BEAT THAT!

42.4 ÷ 8 =

$\frac{2}{5}$	=		=	
fraction		decimal		percentage

3.07 x 1000 =

53.6 ÷ 1000 =

Write these numbers in order...

1.3, 1.113, 1.31, 1.13

651 ÷ 21 =

619 x 77 =

3.4 + ☐ = 10

4.78 x 7 =

45.7 + 8.68 =

4.2 - 1.32 =

L5
1

Andrell Education Ltd

Level 6 Platinum Challenge 1

1. What is $8 \div \frac{2}{5}$?

2. Five sixths add seven ninths

3. Explain why 36% is less than $\frac{3}{8}$

4. Convert $\frac{5}{8}$ into a percentage

5. Increase £32 by 15%

6. Write down a fraction between $\frac{1}{3}$ and $\frac{1}{2}$

7. Decrease 72m by 35%

8. A recipe for 6 people includes 750ml of orange juice. How many millilitres would be needed for 10 people?

9. There is a 30% sale . A boy paid £140 for a camera in the sale. What was the original price of the camera?

10. Divide 180 in the ratio 3:4:5

“Big Maths” and children with SEN.

- Children with Dyslexia, Dyscalculia, memory or certain speech and language needs may have difficulties retaining number facts and may need additional support.
- Use of practical resources both at home and at school can help learning.
- Remember children with SEN can learn times tables however it may take longer whilst the links are made in the brain.
- The CLIC tests use the National Curriculum levels and so can be easily changed to the level the children are working at.
- Beat It tests can be changed so that children have less questions to answer or specific questions are targeted.

Words to use with your children.

Addition	Subtraction	Multiplication	Division
Add	Subtract	Multiply	Divide
Increase	Decrease	Multiplied by	Divided by/into
Sum	Take away	Times	Share
Total	Difference	Double	Share equally
Altogether	Take from	Product	Equal groups of
More	Less	Groups of	Halve
Plus	Minus	Lots of	Remainder/left over
How many more?	How many less?	Repeated addition	Quotient

Parents as partners.

- Look at the Beat It and CLIC tests when they come home and talk to your children about them.

- Work on a few facts at a time.
  - Use flashcards.
  - Use sites on the internet – go through the Warden House website for recommended sites.
    - www.warden-house.kent.sch.uk
  - Use practical resources – lego, counters.
  - Make bingo mats.

Parents as partners.

- Remember to work on addition and subtraction together ; multiplication and division together.

- Please come into school if you need any support or email the office and your message will be forwarded to the Numeracy team.

Questions.

- **How do I help my child to learn maths?**
  - Try to find opportunities for maths in everyday life. Eg, house numbers, car number plates, distances on road signs, recipes, money, fractions (halving, doubling food).
  - Support the learning encouraged by Big Maths.
  - Come to the future Parent Workshops to learn more about how to support your child and become familiar with what goes on in school.

Questions.

- **Is it better to teach 2,4,6,8 OR 1 x 2 = 2, 2 x 2 = 4? How do you teach times tables? Any tricks for "drumming in" times tables?**
  - A range of strategies will help - flashcards, rote teaching, songs (some on you tube), cds, practice books.
  - Initially, learn the times tables in order using 1 x 2 = 2 then muddle up the order to develop speed and recall. Don't forget division facts.
  - Repeat, repeat, repeat.

Questions.

- **When/when not to use a calculator?**
  - We would recommend that you do not use a calculator with your child until they are in year 6.
  - In school, we may use calculators for checking answers but the children need to learn the written methods first.
  - The new Yr 6 SATs test does not have a calculator paper anymore however the Level 6 paper does.