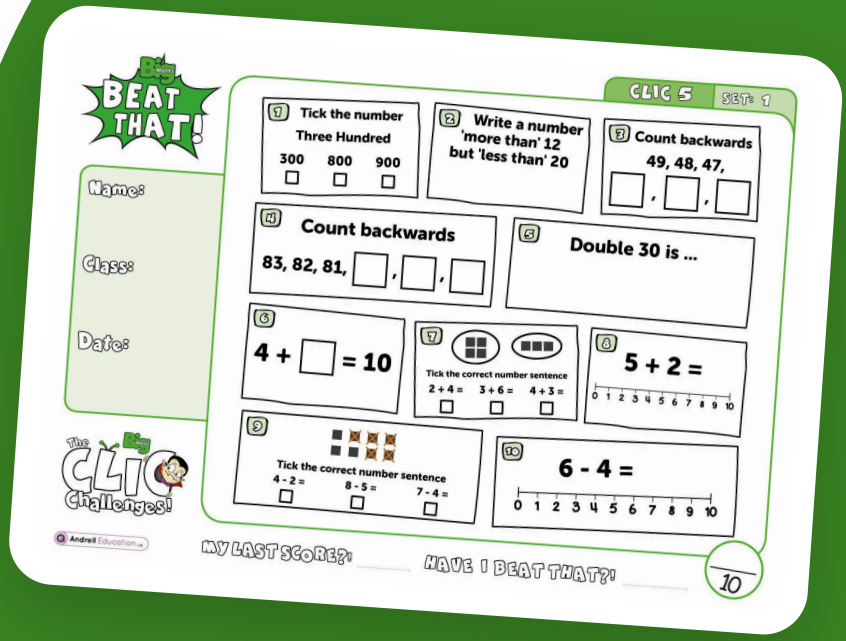
FREE SAMPLE

The Big Maths Baseline Starter Pack

Know what each child knows and what to teach next

A practical guide to finding each child's starting point, identifying their lowest-level Learning Gaps and turning assessment into focused teaching.



Follow the child's lead.
Build securely from there.

START HERE

How to use this pack

1 **Read the six-step process first**

It takes about fifteen minutes.

2 **Try one sample sheet**

Use one Beat That! sheet with a class you know well, to see how the CLIC levels work in practice.

3 **Share it with your maths team**

The six-step process is a taster of how a full baseline works.

What's inside

The six-step method, with a worked Year 4 example — PAGES 4 TO 12

Big Maths Online, and a checklist for teachers — PAGES 13 TO 16

Printable CLIC challenge sheets, CLIC 5 to CLIC 12 — PAGES 18 TO 25

An example intervention set, with answers — PAGES 27 TO 37

The sample shows the kind of gaps a full baseline can surface, often further down the CLIC levels than the year group would suggest. To baseline a whole class or school you need the complete paper process plus Big Maths Online.

THE PRINCIPLE

Why the starting point matters

It is vital to follow the child's lead all the way down to their lowest-level Learning Gaps.

Only then can you ensure that you establish a solid foundation of number knowledge.

This is not about lowering expectations.

It is about finding the earliest missing knowledge that may be preventing later learning from becoming secure.

Secure foundations make the next step closer, clearer and more achievable.

A PAPER-FIRST PROCESS

Baseline Assessment at a glance

1 Confirm ARE

Use Planning to confirm the Age Related Challenge for the class and term.

2 Begin four earlier

For ARE CLIC 13, begin the exploration at CLIC 9.

3 Use paper sheets

Offer CLIC 9, 10 and 11. Move down or up as the child's responses indicate.

4 Find secure knowledge

Continue until the child's lowest-level gaps are understood.

5 Assign the next CLIC

If CLIC 5 is secure at 10/10, assign the child to CLIC 6.

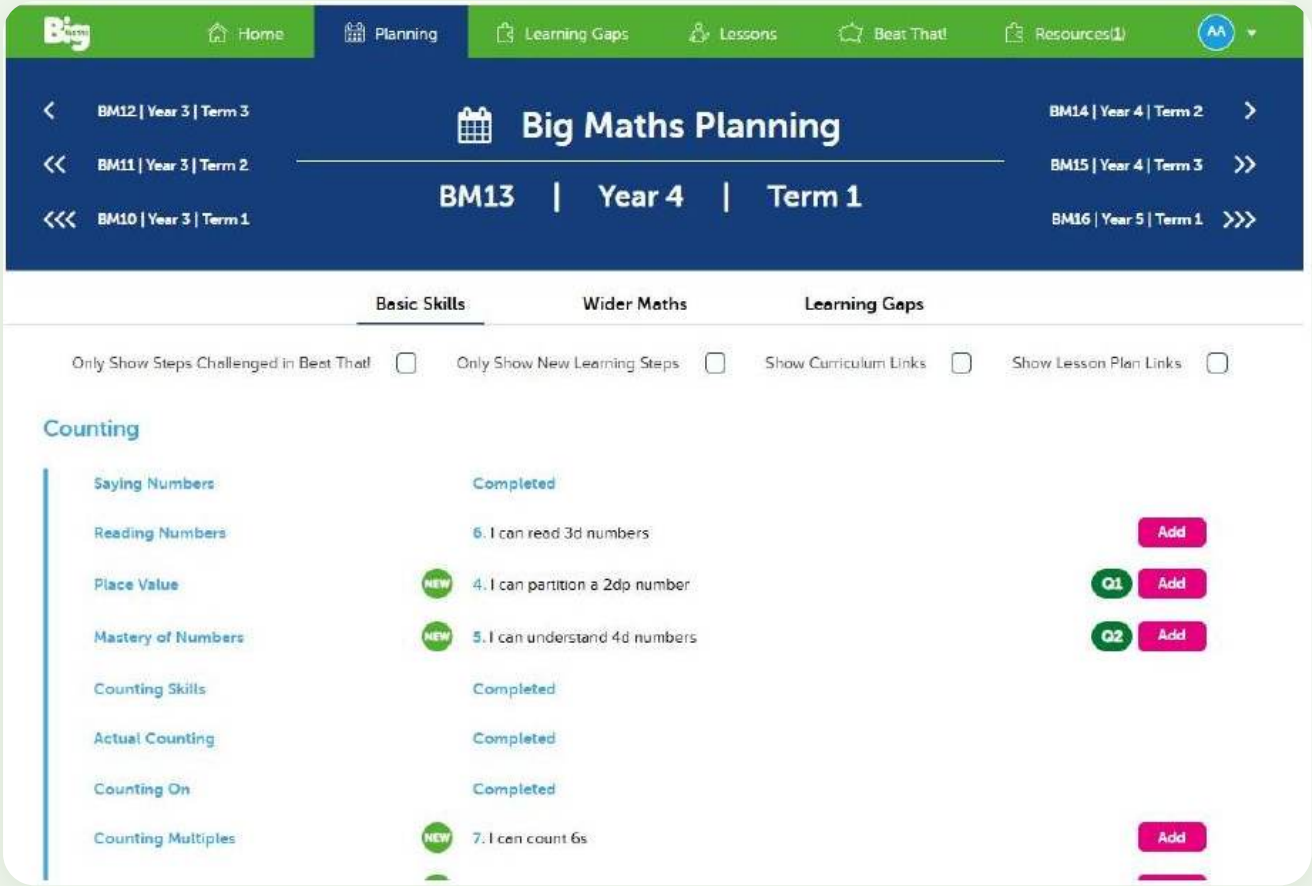
6 Teach the gaps

Enter scores, identify Learning Gaps and schedule focused teaching.

Introduce it as an exploration

"A bit of fun. We just want to see where you can get 10 out of 10."

Worked example: begin four CLIC levels earlier



CLIC 13 – 4

Start at CLIC 9

This is the first place to explore, not a fixed placement. Follow the child's responses.

ILLUSTRATIVE PUPIL JOURNEY

Follow the evidence down

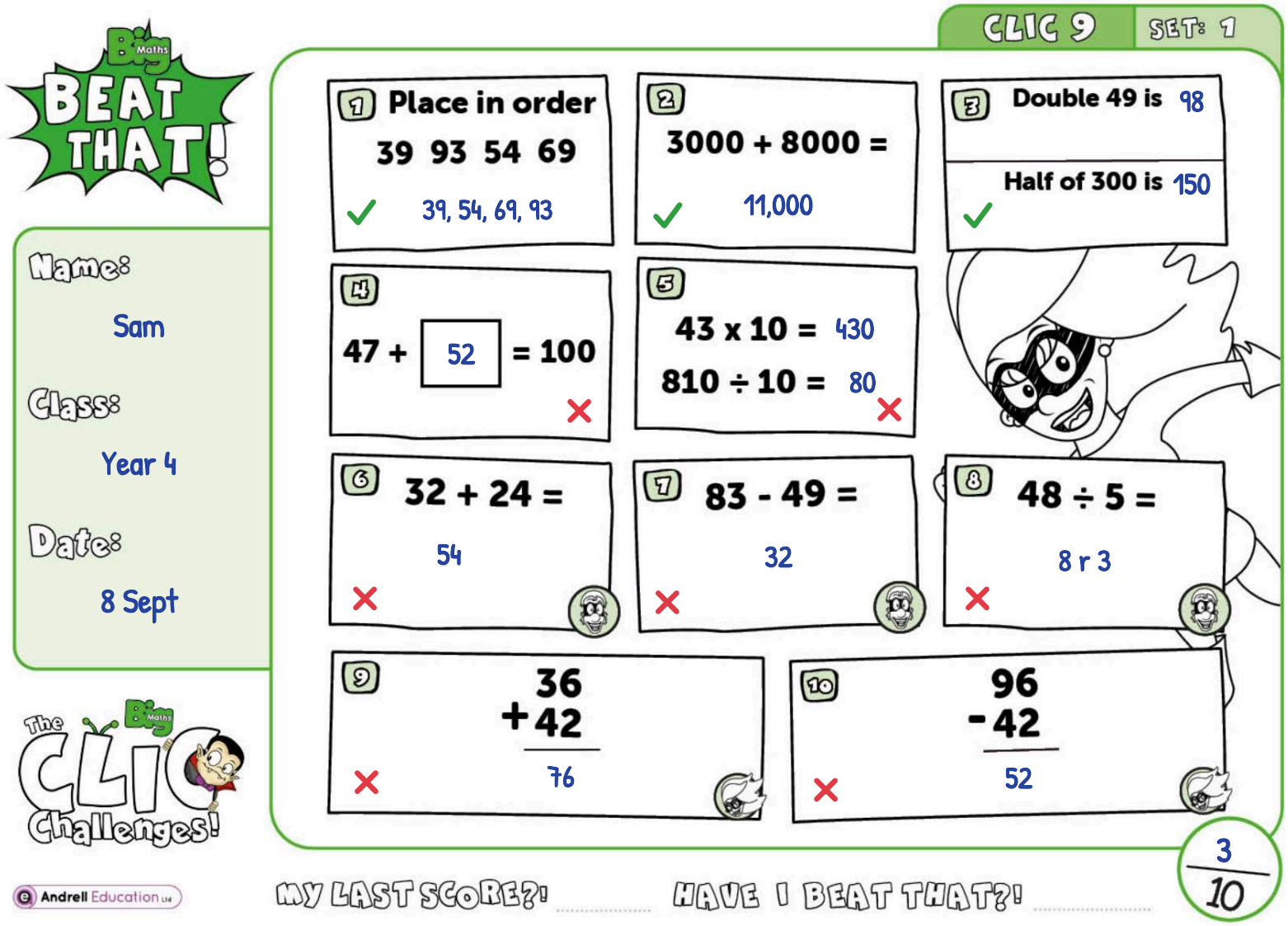
CLIC 9	→	CLIC 8	→	CLIC 7	→	CLIC 6	→	CLIC 5
3/10		5/10		7/10		8/10		10/10

The pattern is deliberately not used to label the child. It guides the teacher towards the earliest gaps and the strongest secure foundation.

At CLIC 5 the child achieves 10/10. CLIC 5 is secure, so the child is assigned to CLIC 6.

FICTIONAL PUPIL · SCORE 3/10

Illustrative worked sheet: CLIC 9



CLIC 9 SCORE

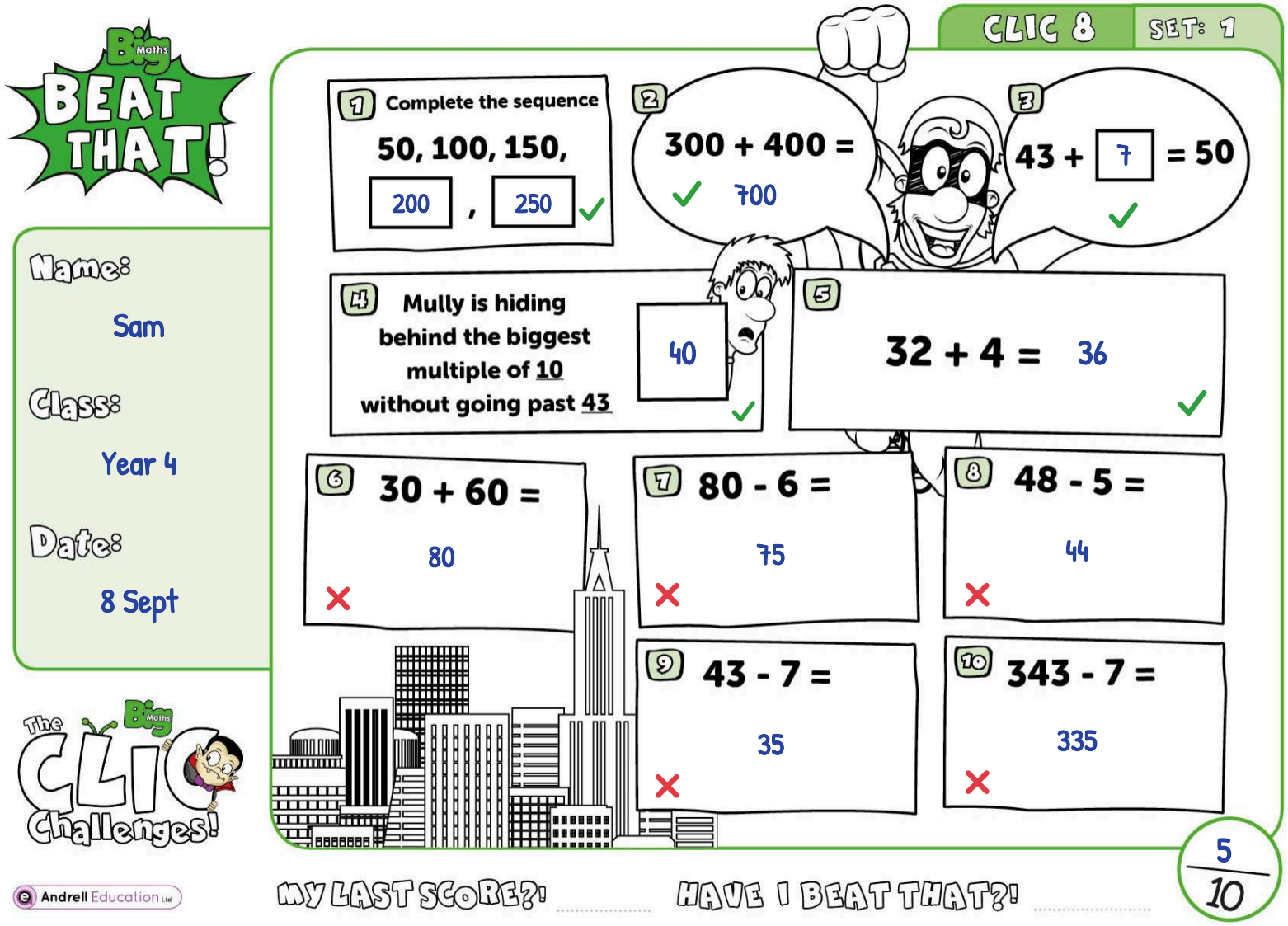
3/10

Continue following the evidence.

Fictional pupil.
Illustrative answers only.

FICTIONAL PUPIL · SCORE 5/10

Illustrative worked sheet: CLIC 8



CLIC 8 SCORE

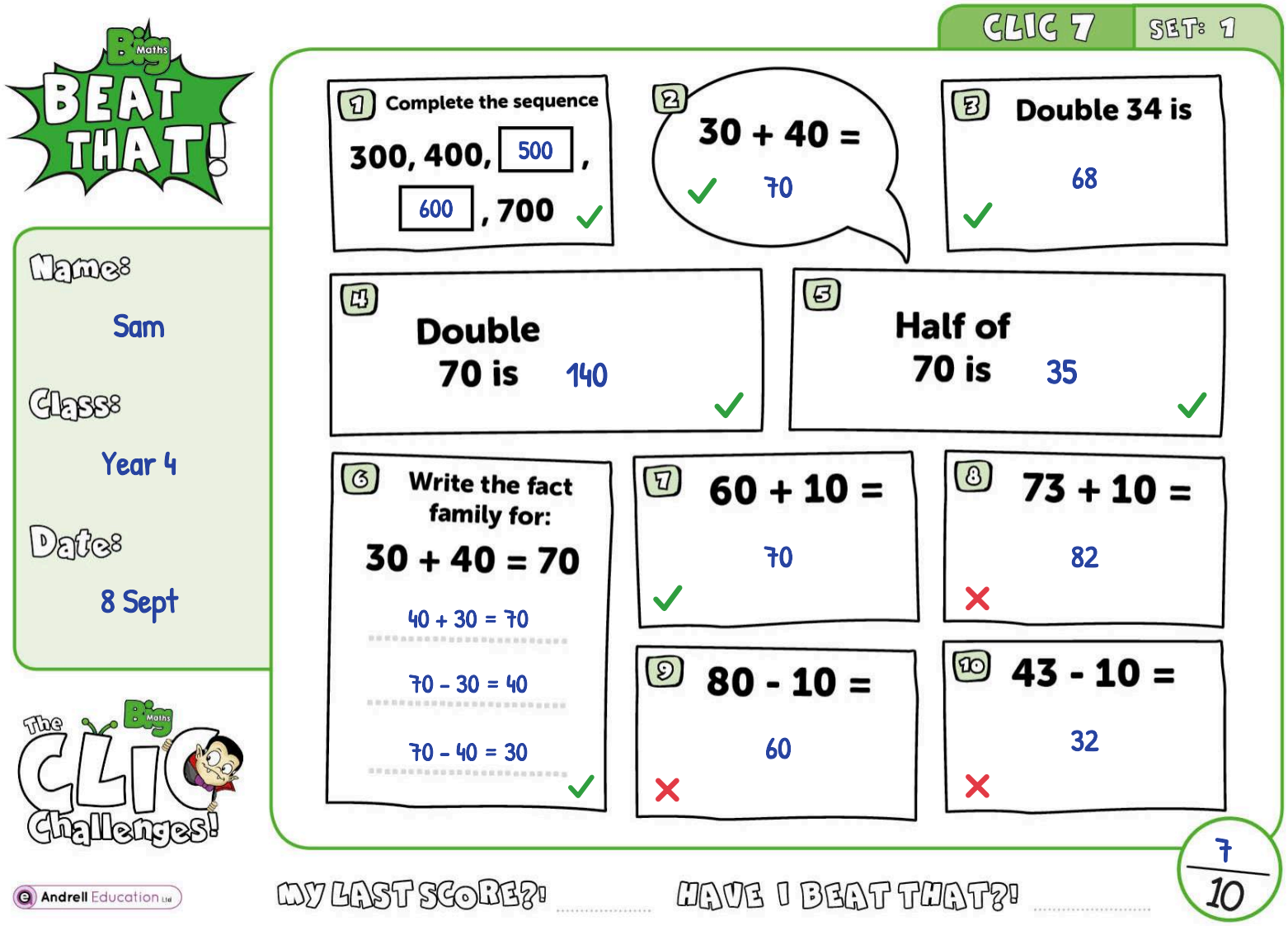
5/10

Continue following the evidence.

Fictional pupil.
Illustrative answers only.

FICTIONAL PUPIL · SCORE 7/10

Illustrative worked sheet: CLIC 7



CLIC 7 SCORE

7/10

Continue following the evidence.

Fictional pupil.
Illustrative answers only.

FICTIONAL PUPIL · SCORE 8/10

Illustrative worked sheet: CLIC 6

BEAT THAT!

Name: Sam

Class: Year 4

Date: 8 Sept

CLIC 6 SET: 1

1. 46 → 40, 6 ✓

2. Place in order: 13 11 17 14 ✓ 11, 13, 14, 17

3. Complete the sequence: 14, 16, 18, 20 ✓

4. Complete the sequence: 160, 170, 180, 190, 200 ✓

5. Circle the odd numbers: 14 (15) (21) 24 ✓

6. Write the fact family for: 8 + 6 = 14 ✓
   6 + 8 = 14
   14 − 8 = 6
   14 − 6 = 8

7. 16 + 3 = 19 ✓

8. 16 + 7 = 23 ✓

9. 16 - 3 = 12 ✗

10. 16 - 7 = 8 ✗



8/10

The Big Maths CLIC Challenges!

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MY LAST SCORE?! ..... HAVE I BEAT THAT?! .....

CLIC 6 SCORE

8/10

Continue following the evidence.

Fictional pupil.
Illustrative answers only.

FICTIONAL PUPIL · SCORE 10/10

Illustrative worked sheet: CLIC 5

BEAT THAT!

CLIC 5 SET: 1

Name: Sam

Class: Year 4

Date: 8 Sept

1 Tick the number Three Hundred ✓
300 ☑ 800 ☐ 900 ☐

2 Write a number 'more than' 12 but 'less than' 20 ✓
16

3 Count backwards ✓
49, 48, 47, 46 , 45 , 44

4 Count backwards ✓
83, 82, 81, 80 , 79 , 78

5 Double 30 is ...
60 ✓

6 4 + 6 = 10 ✓

7 ✓
Tick the correct number sentence
2 + 4 = ☐ 3 + 6 = ☐ 4 + 3 = ☑

8 5 + 2 = 7 ✓
0 1 2 3 4 5 6 7 8 9 10

9 ✓
Tick the correct number sentence
4 - 2 = ☐ 8 - 5 = ☑ 7 - 4 = ☐

10 6 - 4 = 2 ✓
0 1 2 3 4 5 6 7 8 9 10

10/10

The Big Maths CLIC Challenges!

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MY LAST SCORE?! ..... HAVE I BEAT THAT?! .....

CLIC 5 SCORE
10/10

Secure. Assign CLIC 6.

Fictional pupil.
Illustrative answers only.

THE KEY DECISION

The secure level and the assigned level are different

CLIC 5

10 / 10

Secure foundation

Assign CLIC 6

The next challenge

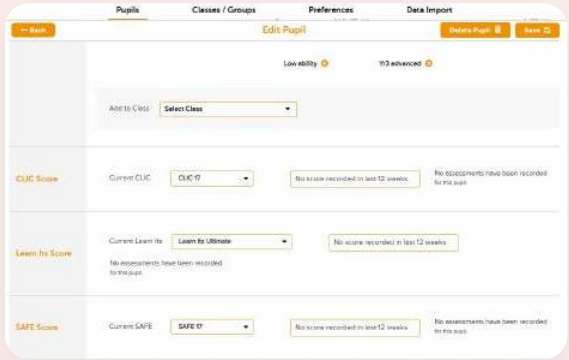
The teacher has the fewest immediate Learning Gaps to target. The child has the best chance of full marks and promotion in the shortest possible time.

CLIC 5 establishes what is secure. CLIC 6 becomes the child's starting challenge.

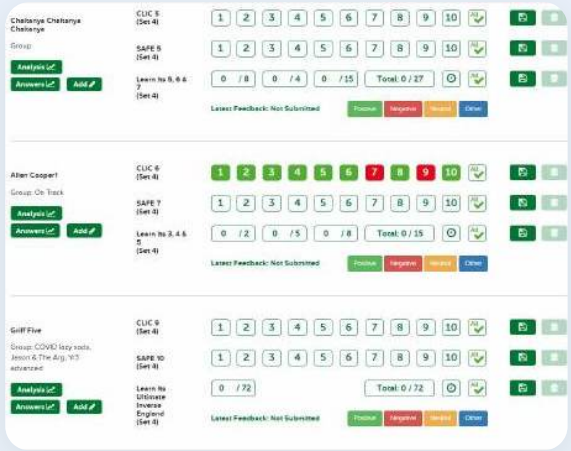
BIG MATHS ONLINE WORKFLOW

Turn the baseline into next-step teaching

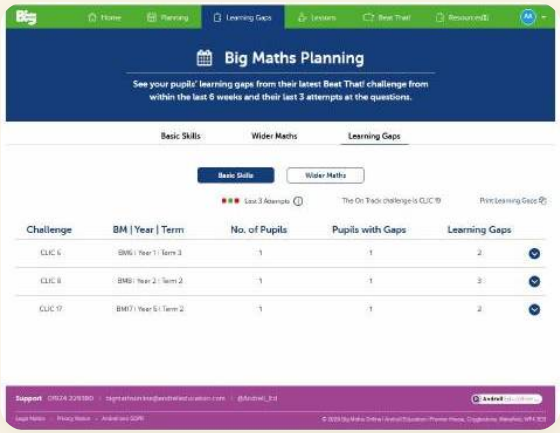
1 Set the level



2 Enter scores



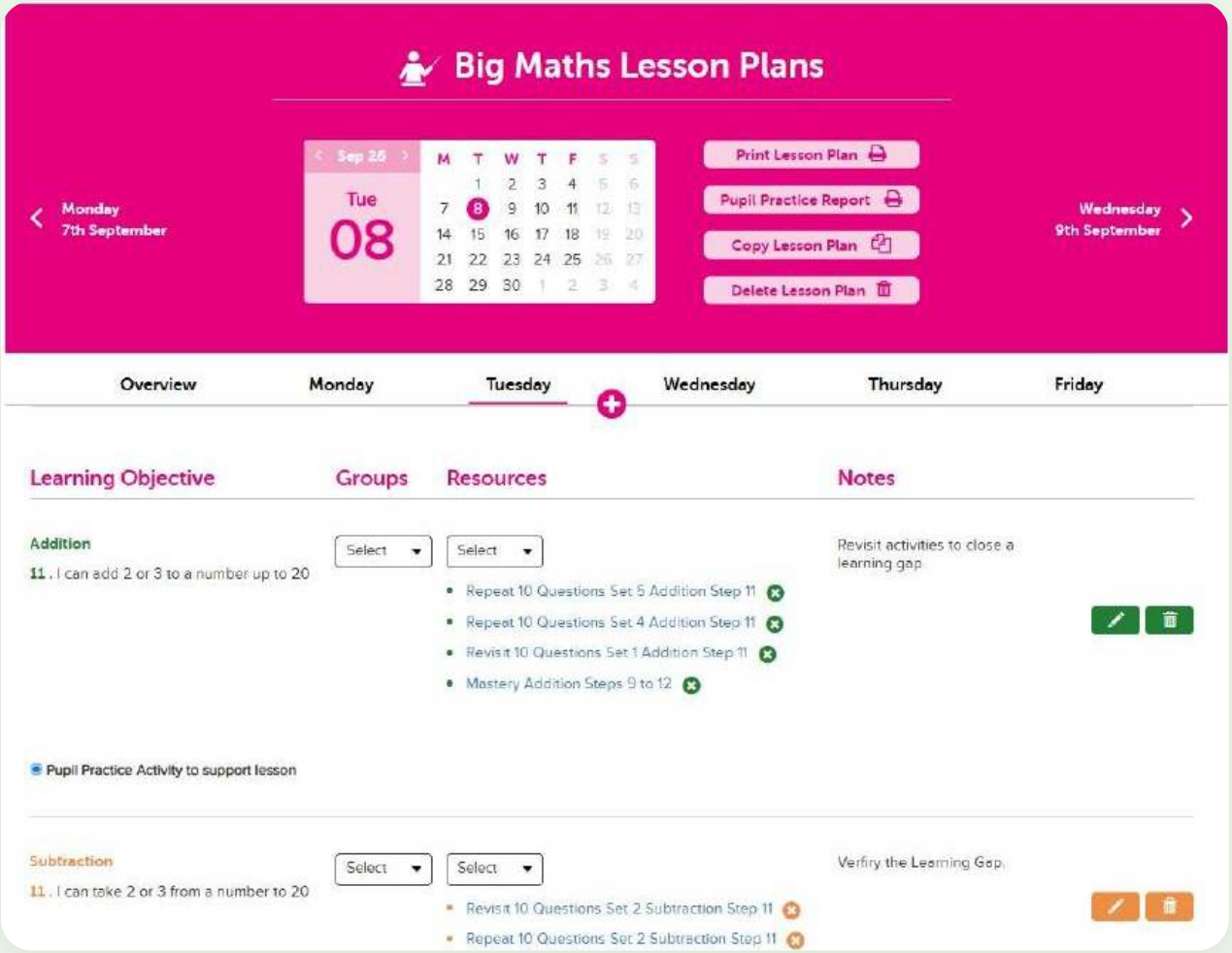
3 See Learning Gaps



The baseline is completed on paper. Big Maths Online then turns the scores into visible gaps and practical teaching priorities.

FROM GAP TO LESSON PLAN

Schedule intervention and allocate resources



EXAMPLE FOCUS

Addition Step 11

Repeat the skill first. Then tackle Revisit, where pupils recognise: 'It's Nothing New'. Next, Real Life Maths presents the skill in worded questions, answered in sentences. Follow with Mastery.

Use Spaced Practice Resources to help children secure skills in long-term memory.

FOR TEACHERS

Baseline implementation checklist

- [ ] Confirm the class Age Related Challenge for the current term.
- [ ] Begin the exploration four CLIC levels earlier.
- [ ] Use paper challenge sheets and keep the tone light and positive.
- [ ] Follow the child's responses up or down. Do not stop too soon.
- [ ] Continue to the lowest-level Learning Gaps.
- [ ] When a level is secure at 10/10, assign the child to the next CLIC challenge.
- [ ] Enter scores in Beat That! and review the Learning Gaps.
- [ ] Add the priority gaps and suitable resources to the lesson plan.
- [ ] Teach, reassess and promote as soon as the child is ready.

Aim for the fewest immediate gaps and the quickest credible route to promotion.

BIG MATHS ONLINE

What happens after the baseline

Weekly Beat That! challenges

Every Friday, every child takes a short challenge. Every question maps to a learning step, so the picture stays current.

Gaps found for you

The Learning Gaps tool shows which steps each child is struggling with, across every class and year group.



Resources one click away

Each gap links straight to matched teaching resources, from a library of over 15,000.

A whole-school view

The teacher dashboard shows lesson plans for the week, promotions per week and the proportion of pupils on track or ahead.

This pack shows the method on paper. Big Maths Online does it for every child, every week.

Book a Tour

A relaxed tour, or a 30-minute chat about your setting.

Basic Skills first, then Wider Maths

Big Maths covers the entire curriculum: Basic Skills through CLIC, and Wider Maths through SAFE (Shape, Amounts, Fractions and Explaining Data). Place the priority on Basic Skills through the CLIC challenges. Once children are progressing with confidence and the Learning Leader is happy with their position in relation to ARE, you can start to introduce Wider Maths content.

Printable CLIC challenge sheets

CLIC 5 to CLIC 12

Use the levels appropriate to the child's exploration. Keep the activity positive and follow the evidence up or down.

These are the Week 1 sheets. In Big Maths Online, each challenge level includes different questions for 10 weeks.

Big Maths BEAT THAT!

Name:

Class:

Date:

1 Tick the number

Three Hundred

300 ☐ 800 ☐ 900 ☐

2 Write a number 'more than' 12 but 'less than' 20

3 Count backwards

49, 48, 47, ☐ , ☐ , ☐

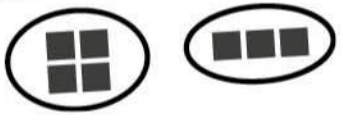
4 Count backwards

83, 82, 81, ☐ , ☐ , ☐

5 Double 30 is ...

6 $4 + \square = 10$

7



Tick the correct number sentence

2 + 4 = ☐ 3 + 6 = ☐ 4 + 3 = ☐

8 5 + 2 =

0 1 2 3 4 5 6 7 8 9 10

9



Tick the correct number sentence

4 - 2 = ☐ 8 - 5 = ☐ 7 - 4 = ☐

10 6 - 4 =

0 1 2 3 4 5 6 7 8 9 10

The Big Maths CLIC Challenges!

Big Maths BEAT THAT!

Name:

Class:

Date:

1 46

2 Place in order

13 11 17 14

3 Complete the sequence

14, ☐, 18, 20

4 Complete the sequence

160, 170, ☐, 190, 200

5 Circle the odd numbers

14 15 21 24

6 Write the fact family for:

8 + 6 = 14

....

....

7 16 + 3 =

8 16 + 7 =

9 16 - 3 =

10 16 - 7 =



The Big Maths CLIC Challenges!

Big Maths BEAT THAT!

Name:

Class:

Date:

1 Complete the sequence

300, 400, ☐, ☐, 700

2 30 + 40 =

3 Double 34 is

4 Double 70 is

5 Half of 70 is

6 Write the fact family for:

30 + 40 = 70

.....

.....

.....

7 60 + 10 =

8 73 + 10 =

9 80 - 10 =

10 43 - 10 =

The Big Maths CLIC Challenges!

MY LAST SCORE?! ..... HAVE I BEAT THAT?! .....

10

Big Maths BEAT THAT!

Name:

Class:

Date:

1 Complete the sequence

50, 100, 150, ☐ , ☐

2 300 + 400 =

3 43 + ☐ = 50

4 Mully is hiding behind the biggest multiple of 10 without going past 43

☐

5 32 + 4 =

6 30 + 60 =

7 80 - 6 =

8 48 - 5 =

9 43 - 7 =

10 343 - 7 =



The Big Maths CLIC Challenges!

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MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....

Big Maths BEAT THAT!

Name:

Class:

Date:

1 Place in order

39 93 54 69

2

3000 + 8000 =

3 Double 49 is

Half of 300 is

4

47 + ☐ = 100

5

43 x 10 =

810 ÷ 10 =

6 32 + 24 =

7 83 - 49 =

8 48 ÷ 5 =

9

$$\begin{array}{r} 36 \\ +\,42 \\ \hline \end{array}$$

10

$$\begin{array}{r} 96 \\ -\,42 \\ \hline \end{array}$$

The Big Maths CLIC Challenges!

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MY LAST SCORE?! ..... HAVE I BEAT THAT?! .....

10

Big Maths BEAT THAT!

Name:

Class:

Date:

1 456



2 3000 + 8000 =

3 Double 39 is

Half of 500 is



4 57 + ☐ = 100

5 83 x 10 =

510 ÷ 10 =

6 48 + 76 =

7 100 - 28 =

8 38 ÷ 5 =

9
37
+ 89

10
76
- 48

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....

10

The Big Maths CLIC Challenges!

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Big Maths BEAT THAT!

Name:

Class:

Date:

1 Complete the sequence

12, ☐, 20,

☐, ☐.

2 Double 400 is

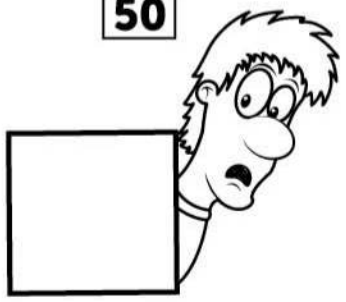
3 Double 900 is

4 30 x 50 =

5 Write your coin card for... x21

x 21	
1	
2	
5	
10	
20	
50	
100	

6 Mully is hiding behind the biggest multiple of 4 without going past 50



7 423 + 25 =

8 526 + 49 =

9
442
+ 36

10
981
- 32

The Big Maths CLIC Challenges!

MY LAST SCORE?! .....

HAVE I BEAT THAT?! .....

10

CLIC 12 SET: 1

Big Maths BEAT THAT!

Name:

Class:

Date:

1. 4.6



2. Place in order

311 131 331

3. Double 437 is

4. Write the fact family for

4 x 30 = 120

.....

.....

.....

5. 431 + 325 =

6. 3 x 82 =

7. 53 ÷ 4 =

8.
$$\begin{array}{r} 686 \\ +\ 549 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 35 \\ \times\ \ 5 \\ \hline \end{array}$$

10. 3 ⟌ 69

The Big Maths CLIC Challenges!

MY LAST SCORE?! ..... HAVE I BEAT THAT?! .....

/10

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Example intervention resources

Addition Step 11

Repeat the skill first. Then tackle Revisit, where pupils recognise: 'It's Nothing New'. Once confident, use Real Life Maths for worded questions answered in sentences. Follow with Mastery and use Spaced Practice to help secure the skill in long-term memory.

Big Maths Repeat Questions

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

1. 17 + 3 =
2. 6 + 2 =
3. 9 + 3 =
4. 12 + 2 =
5. 18 + 3 =
6. 7 + 3 =
7. 1 + 2 =
8. 14 + 2 =
9. 9 + 2 =
10. 13 + 3 =

Repeat Answers

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

1. 17 + 3 = **20**
2. 6 + 2 = **8**
3. 9 + 3 = **12**
4. 12 + 2 = **14**
5. 18 + 3 = **21**
6. 7 + 3 = **10**
7. 1 + 2 = **3**
8. 14 + 2 = **16**
9. 9 + 2 = **11**
10. 13 + 3 = **16**

Big Maths Repeat Questions

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

1. **7 + 3 =**
2. **11 + 2 =**
3. **13 + 2 =**
4. **10 + 3 =**
5. **7 + 2 =**
6. **10 + 2 =**
7. **14 + 2 =**
8. **16 + 2 =**
9. **3 + 2 =**
10. **17 + 2 =**

Repeat Answers

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

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

Big Maths Revisit Questions

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

1. **6km + 3km =**
2. **15m + 3m =**
3. **8cm + 2cm =**
4. **4mm + 2mm =**
5. **4kg + 3kg =**
6. **3g + 2g =**
7. **14mg + 3mg =**
8. **10L + 3L =**
9. **11L + 2L =**
10. **10ml + 3ml =**

Big Maths Revisit Answers

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember To:

- find the starting number
- count on the right amount, one jump for each number
- see where you have landed

1. 6km + 3km = **9km**
2. 15m + 3m = **18m**
3. 8cm + 2cm = **10cm**
4. 4mm + 2mm = **6mm**
5. 4kg + 3kg = **7kg**
6. 3g + 2g = **5g**
7. 14mg + 3mg = **17mg**
8. 10L + 3L = **13L**
9. 11L + 2L = **13L**
10. 10ml + 3ml = **13ml**

Real Life Maths Questions

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember to:

- find the starting number
- count on the right amount... one jump for each number
- see where you have landed

1 **Pom has 16 coins and his brother gives him 3 more. How many coins does Pom have?**

2 **Speedy Col bought toys for £15 and sweets for £2. How much did she spend?**

3 **Pim has 18ml of tea in a mug. He adds 2ml more. How much liquid is in the mug?**

4 **Pom is 14cm tall. Pim is 3cm tall. How tall are they together?**

5 **What is 12 add 3?**

Real Life Maths Answers

Step 11 — **Addition**

I can add 2 or 3 to a number up to 20

Remember to:

- find the starting number
- count on the right amount... one jump for each number
- see where you have landed

1 **Pom has 16 coins and his brother gives him 3 more. How many coins does Pom have?**

Pom has 19 coins.

2 **Speedy Col bought toys for £15 and sweets for £2. How much did she spend?**

She spent £17.

3 **Pim has 18ml of tea in a mug. He adds 2ml more. How much liquid is in the mug?**

There is 20ml in the mug.

4 **Pom is 14cm tall. Pim is 3cm tall. How tall are they together?**

They are 17cm tall together.

5 **What is 12 add 3?**

The answer is 15.

Steps 9 - 12

Addition

Steps: 9 - 12

Repeat! Repeat! Repeat! → Revisit! Revisit! Revisit! → Real Life Maths! → Select → Mastery

1. ☐ - 1 = ☐ + 1

2. What is the largest number that you can **add to 15** so that the answer is still a **2d number?**

3. ☐ + 4 = 13

4. 18 = 14 + ☐ + ☐

5. 18 = 11 + ☐

6. ☐ + ☐ + ☐ = 14

7. 14 + ☐ = 12 + 2

8. Here are **12** stickers. Give them **all** to Mully, Pom and Pim. They **don't** have to receive the same number of stickers each. Show what you do by completing the number sentence;

   12 = ☐ + ☐ + ☐

   How many different possibilities are there?

9. I choose **three 2D shapes**. I have **13 sides** altogether. What shapes could they have been?

10. Pom has **A balls** and Pim has **B balls**. **How many** balls do they have altogether? If **A is 7** and **B is 4**, how many balls do Pim and Pom have?



11. Use these digit cards to make an addition number sentence;

+	=	1	9	5	4

Now can you remove one of the cards and rearrange again to make another correct number sentences?

Steps 9 - 12

Addition

Steps: 9 - 12

Repeat! Repeat! Repeat! → Revisit! Revisit! Revisit! → Real Life Maths! → Select → Mastery

12. Add one more digit card so that you can rearrange these into a number sentence; + = 8 2 4

+	=	8	2	4

13. I think of a number and **add 4**. **Then I add 3**. My answer is **13**. What number did I start with?

14. Complete and continue the pattern:

0 + 1 = ___ **1 - 1 = ___**

1 + 1 = ___ **2 - 1 = ___**

2 + 1 = ___ **3 - 1 = ___**

3 + 1 = ___

4 + 1 = ___

etc.

9 + 1 = ___ **10 - 1 = ___**

15. Can you work out what the missing numbers in this addition wall might be?

20			
16		?	
?	?	?	?

16. I added some numbers but I have forgotten what they were. I remember that my answer was 9. Can you work out what my addition sum might have been? (Later on we can incorporate the fact that there were 3 addends).

17. Complete and continue the pattern:

0 + 1 = ___ **10 + 1 = ___**

1 + 1 = ___ **11 + 1 = ___**

2 + 1 = ___ **12 + 1 = ___**

etc.

9 + 1 = ___ **19 + 1 = ___**

Steps 9 - 12

Addition

Steps: 9 - 12

Repeat! Repeat! Repeat! → Revisit! Revisit! Revisit! → Real Life Maths! → Select → Mastery

18. Complete this cool maths square so that it contains the numbers **1 - 9**, and each row, column and diagonal adds up **to 15**.

8		6
4		2

19. Which of these numbers can you add together to make 20?

7, 3, 12, 5

20. Which of these sentences is the odd one out and why?

8 + **3** and **18** + **3** and **15** + **3**

21. Continue the patterns; **1, 4, 7, ...**

22. If I add together any **two 1d even numbers**, my answer will always be a **1d even number**. **Am I right?**

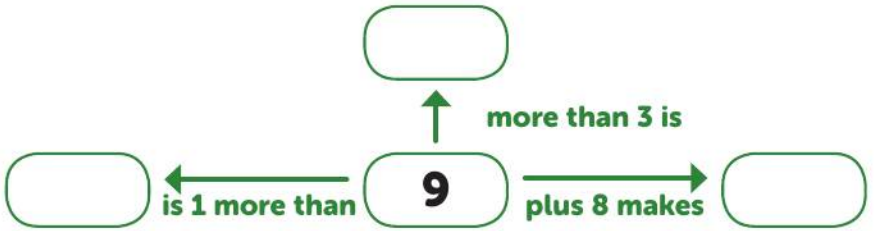
23. I pick **three** of the following digit cards, and **add the numbers.** My total is **8**. Which **three cards** could I have picked?

0	1	2	3	4	5	6	7	8	9

PIM VS POM

24. Play 'Pim vs Pom' adding 1,2 or 3, use a range of contexts e.g. number line, hundred square, clock, ruler etc.

25. Fill in the missing numbers at the end of each arrow. Create your own arrow, rule and correct number to come out of the bottom of the number box.



BASELINE STARTER PACK

Ready to identify every child's starting point?

Book a relaxed tour of Big Maths Online, or a 30-minute chat about your setting.
No pressure, no hard sell.

Book a Tour | **bigmaths.com**

Prefer to talk? Call **01924 229380**

"Children know exactly what they are working towards, and teachers have a shared understanding of progression."

Maths Lead, Rockmount Primary School, South London

"Groupings are flexible, responsive to individual progress, and ensure that all learners are appropriately supported and challenged."

Emma Anstee, Headteacher, Treorchy Primary School, Rhondda Cynon Taf

Case studies demonstrate real school implementation journeys. Attainment outcomes depend on broader leadership and teaching context; Big Maths does not claim sole causation.

What this pack is: a sample of the method. **What it isn't:** a complete baseline for your class or school. That needs the full paper process plus Big Maths Online, covering Years 1 to 6.