



Context for the Toolkits

Shine Maths provides mathematics interventions to support teachers in addressing gaps in their pupils' learning identified through tests such as NTS, PUMA, or PUMA for Scotland. Generating an intervention report in Boost Insights for one of these tests will show you which students struggled with each Area of Learning, based on their scores. The report will then suggest a specific, pre-prepared Learning Sequence to target that area.

A Learning Sequence is a set of intervention activities. You can deliver them purely with the PDF teaching guidance, or you can use the interactive teaching materials, which include dynamic toolkits to support delivery.

What are the Toolkits?

Each activity in the Learning Sequence can be presented on screen as a digital presentation alongside an interactive toolkit. The activity is presented on the left side of the screen, and the right side of the screen is where the intervention leader can use the tools provided to illustrate each step of the activity.

Year 2 Term 2: Mental multiplication and division 2 – Activity 1 | **Hundred square**

What will happen when we count up in twos?

Instruction

We will say either all the even numbers or all the odd numbers, depending on the number we started counting from. Toggle the odd or even buttons on the toolkit to model this.

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	1 to 100	101 to 200	10 to 1000	0.01 to 1	10x10 Table	x 100	%
Even	1	2	3	4	5	6	7
Odd	8	9	10	11	12	13	14
Composite	15	16	17	18	19	20	21
Prime	22	23	24	25	26	27	28
Factors	29	30	31	32	33	34	35
Multiples	36	37	38	39	40	41	42
Blank	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					

The tools provided will vary depending on the activity. For example, an activity exploring time might use the clock toolkit, while an activity focusing on multiplication might use the 100 Square (as in the example above). The icons at the bottom of the left panel provide some guidance to support delivery, with hints and suggestions for how to illustrate each concept with the interactive tools available.

There is a standard toolkit, plus six specialised toolkits used across the Learning Sequences:

- ★ 100 Square
- ★ Counters
- ★ Co-ordinate Grid
- ★ Place Value
- ★ Number Line
- ★ Clock



How to Use the Toolkits

Once you click Start on the interactive teaching materials, the available tools will be listed as icons at the top left of the page.



Year 4 Term 3: Mental addition and subtraction – Activity 3

Day 2 Activity 3: Solving problems mentally

Objectives:

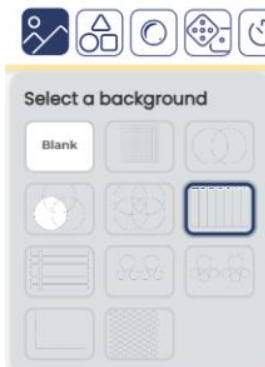
Add and subtract numbers with up to four digits mentally.

Solve addition and subtraction problems in contexts, deciding which operations and methods to use and why.

Standard Toolkit

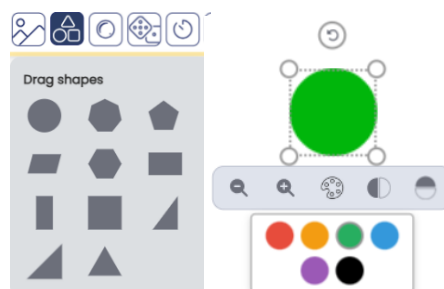
The specific functions available in each toolkit vary, but the standard tools are used across many (or all) of the interactive activities.

Background



Use this tool to select a static background for the interactive whiteboard; for example, a grid, a Venn diagram, or a place value table.

Shape



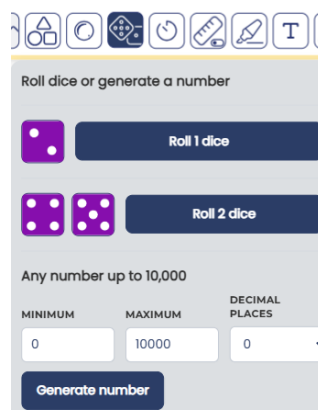
Use this tool to drag shapes onto the interactive whiteboard. Click on the shape to resize, rotate, flip, or change its colour.

Counters



Use this tool to drag counters onto the interactive whiteboard and visualise operations.

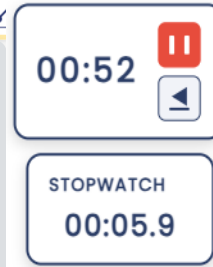
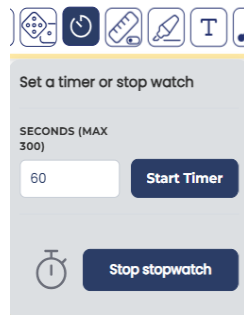
Dice



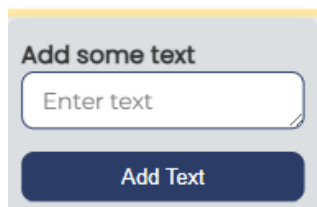
Use this tool to roll dice or generate a random number. You can define the minimum, maximum, and number of decimal places for the random number. The dice or random number will appear on the interactive whiteboard.

**Ruler**

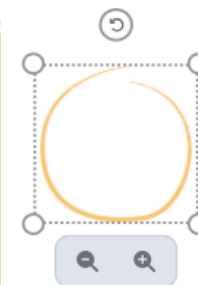
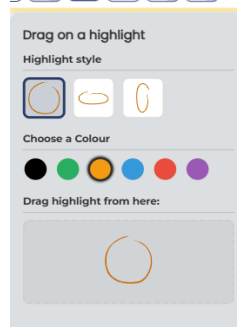
Use this tool to generate a ruler and measure illustrations on the interactive whiteboard. Click on the ruler to reveal the rotation handle.

**Timer**

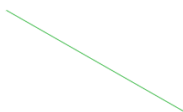
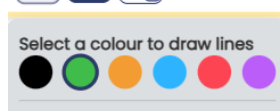
Use this tool to set a timer or stopwatch, which will appear on the interactive whiteboard. Timers can be paused and restarted.

Text

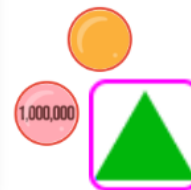
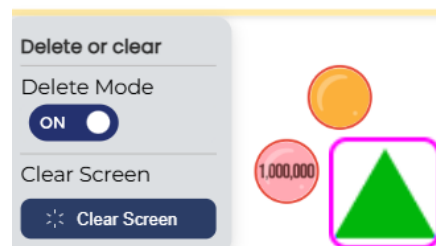
Use this tool to add a text box to the interactive whiteboard and annotate your illustrations. Click and drag the text to move it.

Highlight

Use this tool to create and customise a highlight you can drag onto the interactive whiteboard. Click on the highlight to rotate and resize.

Line

Use this tool to draw lines on the interactive whiteboard. After selecting the tool, your cursor will turn into a crosshair so you can select the start and end points of your line.

Delete

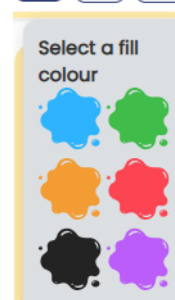
Use this tool to delete objects on the interactive whiteboard. In 'Delete Mode', clicking on objects will delete them. Use 'Clear Screen' to delete all objects.

100 Square**Number square**

	1 to 100			101 to 200			201 to 300			301 to 400			401 to 500			501 to 600			601 to 700			701 to 800			801 to 900			901 to 1000		
Even	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
Odd																														
Composite	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
Prime	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
Factors	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
Multiples	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
Blank	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																				

Use the tabs on the left of the square to highlight relevant numbers and show patterns visually. For the 'Factors' and 'Multiples' options, select a square to highlight relevant numbers.

Use the tabs above the square to change the range of numbers displayed.

Fill

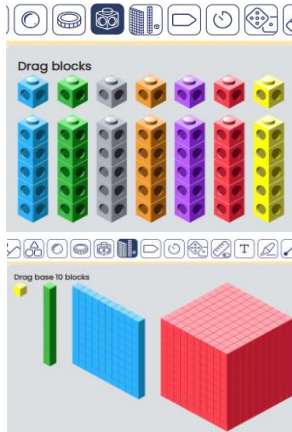
Use this tool to highlight a specific square with a colour of your choice.

	1 to 100	101 to 200
Even	1	2
Odd	11	12
...		



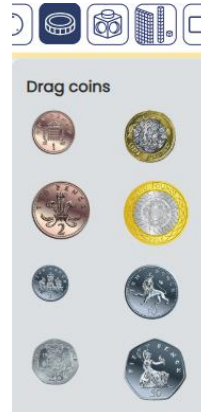
Counters

Number blocks



Use this tool to drag number blocks onto the interactive whiteboard. These are ideal for visualising place value and multiples of ten in three dimensions.

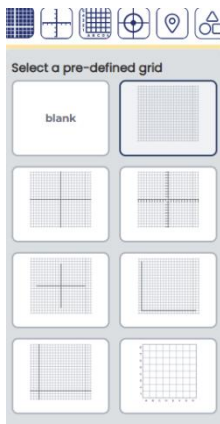
Coins



Use this tool to drag coins onto the interactive whiteboard and illustrate how to count with money.

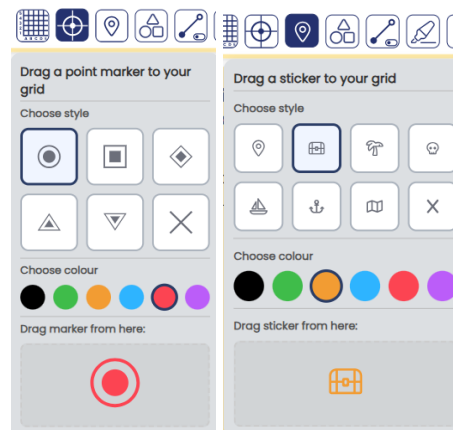
Co-ordinate Grid

Pre-defined grid



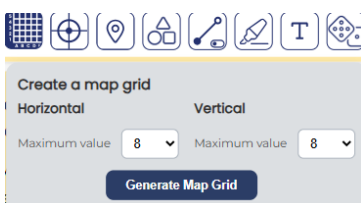
Use this tool to select from a range of simple pre-defined grids for visualising concepts quickly and easily.

Point marker / sticker



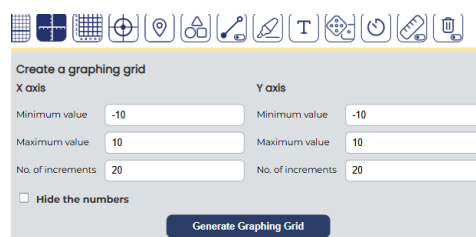
Use these tools to customise point markers or stickers and drag them onto the interactive whiteboard. These can be used to mark key points on your grid.

Map grid



Use this tool to create a customised map grid.

Graphing grid



Use this tool to customise the x and y axes of your graphing grid.

Place Value

Place value arrows



Use these tools to drag place value arrows onto the interactive whiteboard. They are particularly useful for illustrating how a digit's position in a number relates to its value.

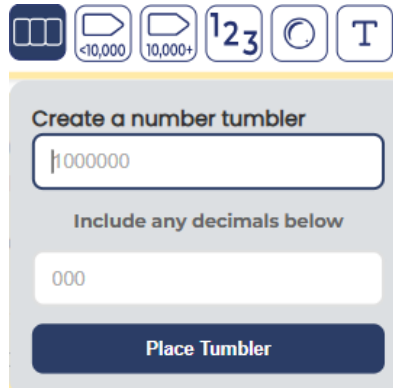


Character

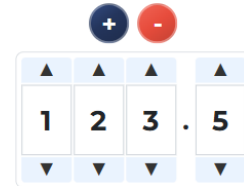


Use this tool to drag numbers and operation symbols onto the interactive whiteboard.

Number tumbler

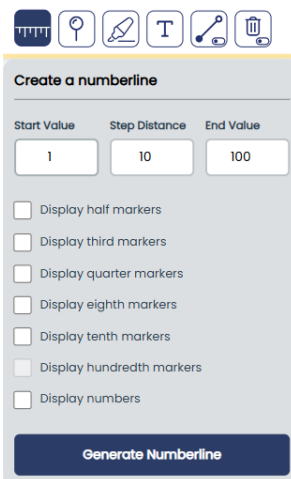


Use this tool to illustrate place value and decimal places. The up and down arrows change individual digits, and the plus and minus buttons add and remove place value columns.



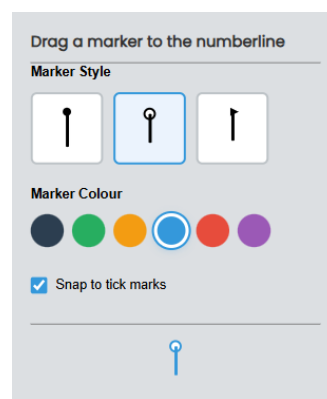
Number Line

Number line



Use this tool to customise your number line. You can select the start and end values and the distance between each tick mark. You can also toggle on intermediate markers and decide whether to display numbers on the line.

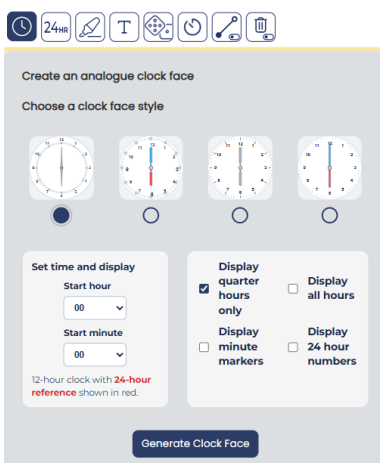
Marker



Use this tool to customise a marker you can drag onto your number line. Select a style and colour. Ticking 'Snap to tick marks' will ensure the marker aligns with the marks on the number line.

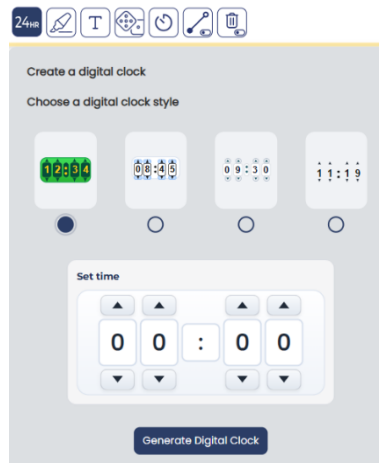
Clock

Analogue clock



Use this tool to generate a customised analogue clock face. It can be useful for illustrating angles and shape as well as how to tell the time. Once the clock has been generated, drag the minute and hour hands to change the time.

Digital clock



Use this tool to generate a customised digital clock. Use the up and down arrows next to each number to change the time.