Introduction

Give every child the depth of learning they need with MathsBeat, a digitally-led teaching and learning resource, crafted by teachers who understand the challenges of teaching for mastery.

Overseen by series editors, Mike Askew and Robert Wilne, all the resources are in one accessible place to give you the flexibility you need.
The statements in bold and italics in both the Experiences and Outcomes and the Benchmarks are the responsibility of all and as such, evidence from across the curriculum should be considered when making judgements about achieving a level.

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**Curriculum**

MathsBeat is fully aligned to the National Curriculum and supports all other UK curricula covering Reception (P1) to Year 6 (P7).

Correlation charts are provided to help you align MathsBeat with your chosen curriculum.
How it works
Digital Planner
Provides your toolkit for day-to-day teaching

- A simple, easy-to-follow sequence of tasks helps you with your delivery
- Tasks are designed to support all learners, with prompts for observation and assessment

Measurement

Unit Map

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Get started
Watch the unit opener video to get started.

National Curriculum Objectives
- Choose and use appropriate standard units to estimate and measure length, height, in any direction (e.g., mm, cm, m), capacity (e.g., litre), mass (e.g., kg), temperature (e.g., °C), time (e.g., minute, hour) in the nearest appropriate unit, using rulers, scales, thermometers, and measuring vessels.
- Compare and order lengths, mass, volume/capacity and record the results.

Aims of the unit
- Children can determine the measurements of given objects using non-standard units ("the pencil is two paperclips long") and can use a range of scales to read exact measures, reading between intervals where appropriate. They can explain the purpose of standard units of measure. They can select the appropriate measuring device and use it accurately to read the scale correctly.
- Children can compare two measurements, in words (e.g., "the pencil is longer than the pen") and symbols ("the length of the pencil > the length of the pen").

Misconceptions
- We measure using repeated, identical units and we use standard units in order to compare the same measurement for different objects accurately and consistently.
- Similarities in different intervals and ranges do not always mean nothing, e.g., temperature.
- Estimation of measures and developing benchmarks allows children to become more familiar with the standard units.
- Two objects have the same measurement (length, mass, etc.), at the measurement for one is greater than or less than the measurement for the other; we can record this using symbols ≤, ≥.
- We use the same type of scale and the same units when comparing measurements.

Knowledge required
- Pupils should be taught to measure and begin to record the following: lengths and heights, mass/weight, capacity and volume.

Get ready
Take a look at the pre-emptive teaching.

Sample task on the Digital Planner
How it works

Digital Planner

- Supports areas of mastery that you have told us are challenging, including:
  - addressing mixed abilities
  - assessing for depth of understanding
  - how to go deeper
  - knowing when to move children on

- Flexible for all teachers, providing the right amount of detail for those who want to use it wholeheartedly as well as those who want to tailor it for their class
How it works

Digital Planner

- Includes IWB software to support your day-to-day teaching with the key representations used in MathsBeat.
- Collates IWB software, front-of-class slides and downloadable practice activities into one easily accessible place to save you time.

Sample IWB activity on the Digital Planner.
How it works

Teacher’s Handbook

Your pick up and go resource for planning, teaching and assessment

- Provides visual case studies of children’s work, as well as real conversations between teachers and children, with detailed commentary
- Contains practical guidance on how to question to develop children’s reasoning and problem-solving skills
- Integrated professional development provides lots of support for building your subject knowledge to ensure you are confident to teach for mastery

Sample page from the Teacher’s Handbook

Term 1: Needing Support

Critical Learning Point:
Recognise and name common 3D shapes, including for example, cuboids (including cubes), pyramids and spheres.

James and Molly are not playing “What’s in the bag?” successfully. The descriptions they are giving and the questions they are asking are not sufficiently focused or forensic:

- Listen to their questioning.
- Ask them questions about their questions, to stimulate their critical self-awareness.

Remember James can’t see inside his bag. Do you think knowing the colour will help him?

There are lots of blue things in this classroom. Do you think this blue ball will feel the same in the bag as this blue book?

You are right Molly, it is a small shape. But there are other small shapes in your bag. How will James know which one to pull out?

What else can you tell him about this particular shape?

James, you are right there are some pointy bits. What else do you think Molly needs to know about the corners?

How can we keep count of the corners so you can tell Molly exactly how many there are?
Assessment

Aims of the unit give examples of the sort of things that children say or do to show mastery of the objectives at the end of the teaching sequence.

‘On track/Look and listen for’ features help you to identify when children are on track, common misconceptions and suggested next steps to get them back on track.

Downloadable practice tasks provide regular opportunities for assessment for learning.

Learning Task 2: Last shape standing

Children have to describe their shape without repeating what has been said before.

Small groups
- Choose a cube or cuboid and describe it in one way, e.g. it has straight edges. Standing up, children take turns to hold the shape and add to the description, e.g. it has straight edges and flat faces. If a child repeats a description they have been down. Which child can stay in the game the longest?
- For a variation or extension of this task, children stand in a circle holding a 3D shape of their own. As you describe a property of your shape, children consider whether their shape is the same or different. If the property of their shape is different, they sit down. If it is the same, they remain standing. Next, collect all the shapes from the children that are sitting down and place them in the middle of the circle.

Can children identify something that is different about those shapes? Something else that is the same?

Greater Depth

Children confidently talk about the similarities and differences between 3D shapes and can explain why a cube is an example of a cuboid. Ask them to produce a poster showing why a cube is a cuboid.

Assessment support sample on the Digital Planner
Community

As well as an experienced author team and our two expert series editors, Mike Askew and Robert Wilne, we have teamed up with educational experts EdComs to recruit an independent teacher panel, which:

- provides valuable feedback at every stage of the publishing process to help us develop a mastery programme for every child
- trials the resources in the classroom to ensure they really work
- helps to support an online community so you have everything you need to teach
Find out more
Visit our website
Register your interest for early access

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