

## Index of Numicon Online Resources

### Numicon Interactive Whiteboard Software

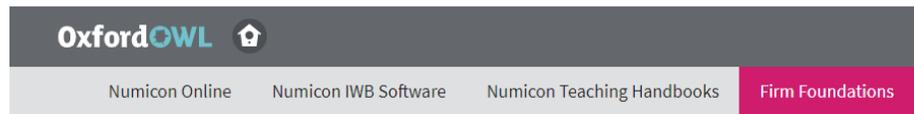
Click on the 'Numicon IWB Software' tab at the top of the *Numicon Online* page. There is a short introductory video at the start of the IWB page, and you can also [see the full User Guide](#) to find out more about how to use the software.



### Numicon IWB Software

### Numicon Firm Foundations

Click on the 'Firm Foundations' tab at the top of the *Numicon Online* page. Here you will find all resources you will need for teaching with *Firm Foundations*.



### Numicon Firm Foundations

### Getting Started

To help you get started with *Numicon Online* and find out about key resources, watch our short introductory webinar (5 mins). [Register for the webinar here.](#)

### Numicon Teaching Handbooks

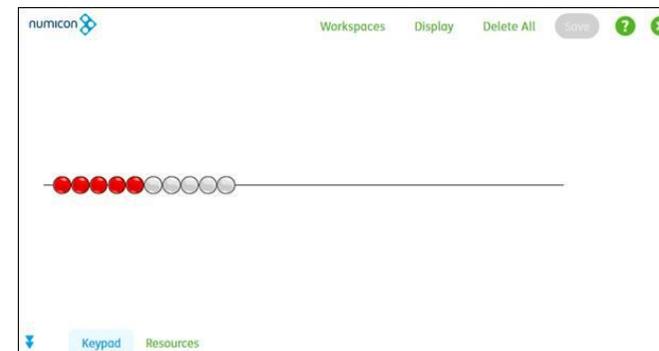
Click on the 'Numicon Teaching Handbooks' tab at the top of the *Numicon Online* page. Here you will find all the resources you need to teach a maths lesson for years 1–6 / P2–7.



### Numicon Teaching Handbooks

### NEW bead string tool

Click [here](#) for early access to the new interactive bead string tool, designed to help you demonstrate, model thinking and share ideas as a class.



## Numicon Online Resources

The following resources are available to Oxford Owl and Numicon Online subscribers. Clicking on the links in the table below will take you to information about each category, with a list of all the resources you can find there. Resources are provided for every year group (Firm Foundations and Numicon 1–6) unless otherwise specified. You can also use the 'Resource type' filter to select any of these categories.

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Assessment	
Resource	Description
<a href="#">Milestone tracking spreadsheets for Numicon 1–6</a>	Tracking spreadsheets for all Teaching Resource Handbooks in Numicon 1–6, Test Practice Questions and Numicon Big Ideas. Enter a rating for each milestone statement to see overall assessment of children’s progress
<a href="#">Milestone Assessment Cards for Numicon 1–6</a> <b>Now including Numicon 1 &amp; 2</b>	Materials for children's self-assessment including printable question cards, category cards, a quick guide, milestone statements, Teaching Progression chart and answer cards.
<a href="#">Guidance for Year 2 teachers and mental maths practice ideas for Year 2/P3</a>	Suggestions for planning maths teaching in Year 2 to cover the full programme of study in advance of the KS1 SATs, and a checklist of ideas for practising mental maths throughout Numicon 2
<a href="#">Milestones for Numicon 1–6</a>	Editable statements of the skills and understanding needed at each milestone
<a href="#">Individual Pupil Assessment Record – Milestones (Numicon 1–6)</a>	Editable photocopy master showing the milestone statements
<a href="#">Assessment Grids</a>	Editable assessment grids for each Teaching Resource Handbook in Numicon 1–6
<a href="#">Breaking Barriers Assessment Tools</a>	Printable copies of the assessment tools for the Breaking Barriers (SEND) programme: Assessment Signposts, Individual Record of Progress and Child Profile
Planning	
Resource	Description
<a href="#">Combined teaching progression (Numicon 1–6)</a>	Chart showing the suggested order for all activity groups across Number, Pattern and Calculating and Geometry, Measurement and Statistics
<a href="#">Mixed-age planning charts</a>	Guidance documents on how to plan for mixed-age classes using Numicon
<a href="#">Long-term planning charts</a>	Editable overview of the recommended order of activity groups and milestones
<a href="#">Medium-term planning charts</a>	Editable statements of the understanding children need to progress
<a href="#">Short-term planning charts</a>	Suggestions for planning and editable templates for creating short-term plans (Word or Excel formats)

Assessment	Planning	Teacher support videos	Professional development	Curriculum coverage	Answers	Teaching notes	Guide
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<a href="#">Linking Breaking Barriers and Numicon 1–3</a>	Two charts: 1. Shows the links between Breaking Barriers Activity Groups and Numicon 1, 2 & 3. 2. Identifies Activity Groups in the Breaking Barriers Handbook to support work in Numicon 1, 2 & 3. Both charts are grouped by theme to help you plan.
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## Teacher support videos

<b>Resource</b>	
<a href="#">IWB idea videos</a>	Videos of activity ideas to use with the Numicon IWB, with supporting notes including curriculum and Numicon milestone matches; resources to use with the whiteboard to keep the whole class engaged; and links to other materials.

<p><b><u>Numicon Firm Foundations</u></b>          Halving and doubling          Matching Numicon Shapes with numerals, using spinners or numeral cards</p>	<p><b><u>Numicon 4</u></b>          Adding and subtracting fractions beyond 1          Exploring patterns in sequences of multiples          Using arrays to explore the commutative property of multiplying          Multiplying in parts          Introducing negative numbers on the -12 to 12 Number Line</p>
<p><b><u>Numicon 1</u></b>          Halving collections of objects          Exploring adding facts to 10          Understanding ‘how many more?’ with number rods          Looking at quantity and column value of 2-digit numbers</p>	<p><b><u>Numicon 5</u></b>          Fractions - illustrating equivalence with Numicon Shapes          Multiplying proper fractions by whole numbers          Testing general statements about factors, multiples and divisibility</p>
<p><b><u>Numicon 2</u></b>          Finding quarters and three-quarters          Adding to 20          Rounding double-digit numbers using Numicon Shapes and number rods</p>	<p><b><u>Numicon 6</u></b>          Adding and subtracting fractions with different denominators          Using arrays to support calculating with fractions          Investigating rules and generalizing with algebra, to build a sequence and generate the <math>n</math>th term</p>
<p><b><u>Numicon 3</u></b>          Fractions on a number line          Exploring equivalence with number rods          Adding hundreds, tens and ones</p>	

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<a href="#">‘How to’ videos</a>	Short videos with Professional Development expert Louise Pennington, demonstrating ways to use manipulatives and the CPA approach
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<b>Teacher support videos (continued)</b>	
<b>Resource</b>	<b>Description</b>
<a href="#">What’s included in your teaching handbook? (Numicon 1–6 and Firm Foundations)</a>	What teaching material supports Numicon 1–6 and Firm Foundations: introducing the printed teaching resources
<a href="#">What physical apparatus supports the Numicon teaching programme? (Numicon 1–6 and Firm Foundations)</a>	An introduction to the Numicon apparatus children will be using in class
<a href="#">How do the Numicon resources support your maths teaching? (Numicon 1–6 and Firm Foundations)</a>	Teachers share their experiences of using the Numicon teaching programme
<a href="#">How to set up your classroom (Numicon 1–6 and Firm Foundations)</a>	Creating a maths-rich classroom environment, covering both inside and outdoors for Foundation stage
<a href="#">Numicon in use in the classroom (Numicon 1–6)</a>	Using the published resources in the classroom
<a href="#">Planning and assessing with Numicon (Numicon 1–6 and Firm Foundations)</a>	Organizing time and monitoring progress with Numicon Observing, assessing and planning with Firm Foundations
<a href="#">An activity in action (Numicon 1–6 and Firm Foundations)</a>	Watch an activity in action in the classroom, and hear how the activity benefits teaching and learning

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<a href="#">Classroom display</a>	<a href="#">Photocopy master</a>	<a href="#">Maths story starter</a>	<a href="#">Activity</a>	<a href="#">Activity group summaries</a>	<a href="#">Discussion materials</a>	<a href="#">Whiteboard resource</a>	

<a href="#">Videos to support teaching the Big Ideas programme</a>	<ul style="list-style-type: none"> <li>• Introducing the Numicon approach</li> <li>• What's in the Numicon Big Ideas folder?</li> <li>• What physical apparatus supports the Big Ideas programme?</li> <li>• The theory of effective catch-up: what are the barriers to learning?</li> <li>• How to implement effective catch-up: practical guidance</li> <li>• Assessing before and after the intervention</li> </ul>
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Professional development	
Resource	Description
<a href="#">Teacher interviews</a>	Videos detailing teachers' views on using the Numicon 1–6 and Firm Foundations teaching programmes
<a href="#">‘How to’ videos</a>	Short videos with Professional Development expert Louise Pennington, demonstrating ways to use manipulatives and the CPA approach
<a href="#">Videos to support teaching the Big Ideas programme</a>	<ul style="list-style-type: none"> <li>• Introducing the Numicon approach</li> <li>• What's in the Numicon Big Ideas folder?</li> <li>• What physical apparatus supports the Big Ideas programme?</li> <li>• The theory of effective catch-up: what are the barriers to learning?</li> <li>• How to implement effective catch-up: practical guidance</li> <li>• Assessing before and after the intervention</li> </ul>
<a href="#">Bar Modelling Teacher Resources</a>	Introduction to bar modelling, using manipulatives including Numicon Shapes and number rods. Resources to support teaching with bar modelling in specific areas of maths, with examples from the Numicon teaching programme: <b>Early Years   Adding and Subtracting   Multiplying and Dividing   Fractions</b>
<a href="#">CPA Teacher Resources</a>	Two resources to support teaching with the Concrete-Pictorial-Abstract approach: <ul style="list-style-type: none"> <li>• Background to the Concrete-Pictorial-Abstract approach and how Numicon supports it</li> <li>• Guidance on using the Concrete-Pictorial-Abstract approach in your teaching, with examples from the Numicon teaching programme</li> </ul>

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Maths story starter	
Resource	Description
<a href="#">Maths story starters 1–10</a>	Printable colour pages for Numicon 1/Foundation stage, with starting points for number stories about the numbers 1–10, using the Numicon Shape patterns.
Classroom display	
Resource	Description
<a href="#">Classroom display ideas</a>	A PDF document of suggestions for creating your own classroom displays, written by Numicon authors, plus PDF photocopy masters to support you with this. These resources are designed for use with Numicon 1–4.

Curriculum coverage	
Resource	Description
<a href="#">How Numicon matches to DfE guidance for maths (England)</a>	How you can use the Numicon 1–6 teaching programme with the DfE ready-to-progress criteria and future applications
<a href="#">How Numicon Firm Foundations meets the Early Learning Goals</a>	How the Numicon Firm Foundations teaching programme covers the Early Years Foundation Stage (EYFS) 2020 and meets the Early Learning Goals (ELGs) for mathematics
<a href="#">Numicon and the Curriculum for Excellence (Scotland)</a>	How Numicon matches the Curriculum for Excellence: Experiences and Outcomes and Benchmarks, from Early to Third level
<a href="#">International matching charts</a>	<ul style="list-style-type: none"> <li>• How Numicon supports the Cambridge International Primary curriculum</li> <li>• How Numicon supports the Primary Years Programme (PYP) of the IB</li> </ul>
<a href="#">Numicon and the national curriculum (England, 2014)</a>	<ul style="list-style-type: none"> <li>• How Numicon matches the Early Years Foundation Stage</li> <li>• How Numicon matches the national curriculum (PDF and Word)</li> <li>• Charts correlating the focus activities and assessment milestones from the Numicon teaching programme with the national curriculum</li> </ul>
<a href="#">Numicon and the LNF (Wales) and Curriculum for Wales + NEW Progression Steps - Spring 2021</a>	How Numicon matches the 2020 Progression Steps, Literacy and Numeracy Framework and Foundation Phase Mathematical Development Area of Learning
<a href="#">Numicon and the Northern Ireland Curriculum</a>	How Numicon matches the Northern Ireland Curriculum (PDF and Word)
<a href="#">NEW White Rose Maths Matching Charts</a>	Charts showing how Numicon 1–6 supports the White Rose Primary Schemes of Learning: Overviews for the whole year, and Small Steps for all Autumn, Spring and Summer Term

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	Blocks. <b>These charts have been updated with direct links: each reference to a specific Numicon activity or Activity Group links to the relevant content on the Teaching Handbooks section of Numicon Online.</b>
<a href="#">Power Maths Matching Charts (Now including levels 1–6)</a>	Charts showing how Numicon supports Power Maths 1–6
<a href="#">Maths – No Problem! Matching Charts</a>	Charts showing how Numicon supports Maths No Problem 1–6 Book A and Book B
<b>Discussion materials</b>	
<b>Resource</b>	<b>Description</b>
<a href="#">Pupil Book opening questions</a>	These are the opening questions and images taken from the <i>Numicon Pupil Books</i> . You can display these on screen or on an interactive whiteboard and use them for class discussion. The first question (or opening questions) has been provided for each chapter (or Activity Group) of <i>Numicon Pupil Books</i> 3, 4, 5 and 6.
<b>Answers</b>	
<b>Resource</b>	<b>Description</b>
<a href="#">Pupil Book answers</a>	Full answers to the questions in <i>Numicon Pupil Books</i> 3, 4, 5 and 6, for reference. At the start of each answer book, you will also find an introduction to <i>Numicon Pupil Books</i> from Dr Tony Wing, a guide to key Numicon resources and how these fit together and a planning chart. The planning chart gives you the topic covered by each Activity Group, the corresponding pages in the Pupil Book and the milestone assessment statements.
<b>Teaching notes</b>	
<b>Resource</b>	<b>Description</b>
<a href="#">Teaching notes for the IWB idea videos</a>	Activity ideas to use with the Numicon IWB, with supporting notes including curriculum and Numicon milestone matches, resources to use with the whiteboard to keep the whole class engaged; and links to other materials.
<b>Guide</b>	

<a href="#">Assessment</a>	<a href="#">Planning</a>	<a href="#">Teacher support videos</a>	<a href="#">Professional development</a>	<a href="#">Curriculum coverage</a>	<a href="#">Answers</a>	<a href="#">Teaching notes</a>	<a href="#">Guide</a>
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Resource	Description
<a href="#">Numicon Interactive Glossary</a>	Look up definitions and images for key maths terms. Display the glossary on screen for your class or use to prepare your lessons.
<b>Photocopy master (continues on next page!)</b>	
Resource	Description
<a href="#">Photocopy master packs</a>	A selection of general photocopy masters for regular use. Available in packs for ages 3–5, 5–7 and 7–11.
<a href="#">Teaching Resource Handbook photocopy master packs</a>	Quickly download a PDF pack of all the photocopy master pages from any Teaching Resource Handbook (Firm Foundations to Numicon 6).
<b>Photocopy master (continued)</b>	
<a href="#">Individual photocopy pages</a>	<p>You can find any of the individual photocopy master pages from all the Teaching Resource Handbooks, in both PDF and editable Word formats.</p> <p><b>Note:</b> If you're looking for a specific page, click on the link and type the title or keywords into the Search box (e.g. Isometric Paper). If you know the photocopy master number, you can click on the link and use the filters to select the Numicon level and Key area, then type the number into the Search box.</p>
<a href="#">Online photocopy pages</a>	<p>Online-only printable resources, including a quick guide to the number rods.</p> <p>For Firm Foundations, this includes classroom labels, the Counting and Number Ideas book, recipe cards and more.</p>
<a href="#">Activity sheets (print at A3)</a>	<p>Themed seasonal activities for ages 3+, 4–7, 7–9 and 9–11 on these topics:</p> <ul style="list-style-type: none"> <li>• NEW: Cut-and-stick Christmas tree</li> <li>• NEW: Snow tracks</li> <li>• Christmas tree</li> <li>• Christmas presents</li> <li>• farm in winter</li> <li>• winter pictures (ice skate)</li> <li>• snow people</li> <li>• wrapping paper</li> <li>• garden birds</li> <li>• spring flowers</li> <li>• flower beds</li> <li>• spring chicks</li> <li>• spring animals</li> <li>• beanbag maths</li> <li>• building brick patterns</li> <li>• camping conundrum</li> <li>• summer fair</li> <li>• autumn leaves/maths outdoors</li> <li>• firework patterns</li> <li>• food collection</li> </ul>

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<a href="#">Breaking Barriers photocopypages</a>	<p>The photocopyp masters for Breaking Barriers (programme for children with learning difficulties or SEND). You can download the photocopyp pages as a pack or as individual pages, so you can find them by name or number.</p> <p>You can also find the <a href="#">Breaking Barriers Assessment Tools</a> in the Assessment section.</p>
<a href="#">New Gattegno Chart (millions and decimals)</a>	<p>A printable Gattegno chart including decimals that can be used to support a range of topics.</p>
<a href="#">New Printable Numicon Shapes and Baseboard</a>	<p>Printable Numicon Shapes and Baseboard to download and cut out which can be used for a wide variety of activities.</p>

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Activity	
Resource	Description
<a href="#">Mental maths practice ideas for use throughout Year 2/P3</a>	Checklist of ideas for practising mental maths throughout Numicon 2
<a href="#">Extra activities for Scotland, Wales and Northern Ireland in Numicon 6</a>	Two activity groups on additional topics to support Numicon 6: GMS 6 Measurement 1: with added activities on the median, mode and range, including photocopy masters GMS 6 Measurement 5: Probability – full activity group with photocopy masters, Explore More and Explorer Progress Book pages
<a href="#">Activity sheets (print at A3)</a>	Themed seasonal activities for ages 3+, 4–7, 7–9 and 9–11 on these topics: <ul style="list-style-type: none"> <li>• NEW: Cut-and-stick Christmas tree</li> <li>• NEW: Snow tracks</li> <li>• Christmas tree</li> <li>• Christmas presents</li> <li>• farm in winter</li> <li>• winter pictures (ice skate)</li> <li>• snow people</li> <li>• wrapping paper</li> <li>• garden birds</li> <li>• spring flowers</li> <li>• flower beds</li> <li>• spring chicks</li> <li>• spring animals</li> <li>• beanbag maths</li> <li>• building brick patterns</li> <li>• camping conundrum</li> <li>• summer fair</li> <li>• autumn leaves/maths outdoors</li> <li>• firework patterns</li> <li>• food collection</li> </ul>
Activity group summaries	
Resource	Description
<a href="#">Activity Group summaries for each Teaching Resource Handbook</a>	These provide a summary of the information contained on the ‘Educational context’ page of each activity group for <i>Number, Pattern and Calculating</i> (NPC) and <i>Geometry, Measurement and Statistics</i> (GMS) 1–6, including: <ul style="list-style-type: none"> <li>• Key mathematical ideas</li> <li>• Learning opportunities</li> <li>• Assessment opportunities</li> <li>• Words and terms for use in conversation</li> <li>• Cross-references to the Explorer Progress Books (pupil pages) and Explore More resources (for homework).</li> </ul>

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Whiteboard resources	
Resource	Description
<a href="#">Numicon Interactive Glossary</a>	Definitions and images for key maths terms to use with your class, groups, individuals or when preparing lessons.
<a href="#">IWB idea videos</a>	Videos of activity ideas to use with the Numicon IWB, with supporting notes including curriculum and Numicon milestone matches; resources to use with the whiteboard to keep the whole class engaged; and links to other materials.
<a href="#">Firm Foundations</a>	<b>Halving and doubling</b>
<a href="#">Numicon 1</a>	Matching Numicon Shapes with numerals, using spinners or numeral cards Halving collections of objects Exploring adding facts to 10 Understanding 'how many more?' with number rods
<a href="#">Numicon 2</a>	Looking at quantity and column value of 2-digit numbers Finding quarters and three-quarters Adding to 20 Rounding double-digit numbers using Numicon Shapes and number rods
<a href="#">Numicon 3</a>	Fractions on a number line Exploring equivalence with number rods Adding hundreds, tens and ones
<a href="#">Numicon 4</a>	Adding and subtracting fractions beyond 1 Exploring patterns in sequences of multiples Using arrays to explore the commutative property of multiplying Multiplying in parts
<a href="#">Numicon 5</a>	Introducing negative numbers on the $-12$ to 12 Number Line Fractions - illustrating equivalence with Numicon Shapes Multiplying proper fractions by whole numbers
<a href="#">Numicon 6</a>	Testing general statements about factors, multiples and divisibility Adding and subtracting fractions with different denominators Using arrays to support calculating with fractions Investigating rules and generalizing with algebra, to build a sequence and generate the $n$ th term.

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