


# Getting Started

## KS3 Maths Toolkit



### Introduction


*KS3 Maths Toolkit* is designed to turn your Interactive Whiteboard or other big-format display into a powerful resource for delivering the new Programme of Study and revised Framework for 2008. It keeps you at the centre of the lesson, requiring interaction from you and your students at every stage, making *Toolkit* ideal for true interactive teaching.



It contains 21 activities of considerable scope, which can be used in a wide variety of ways to address a diverse range of teaching points. The breadth and flexibility of each activity is enhanced by a configuration panel, which allows you to adjust the settings of the activity you're using to tailor it to your lesson. These settings aim to be self-explanatory, although in some cases clarification is available by pressing . Generally it is advisable to test out the different settings in the configuration panel to ensure you are aware of the full range of possibilities an activity offers.

The flexibility of *Toolkit* should make it a valuable resource to integrate into your lesson at any stage, whether introducing a new topic or dipping in to reinforce a particular concept that causes difficulty. *Toolkit* is designed to support teaching across the Maths Key Stage 3 Framework, excluding the Year 9 extension objectives, which are covered by *Boardworks KS4 Maths PowerPoint* and the forthcoming *KS4 Maths Toolkit*.

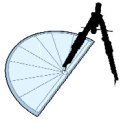
### Activities and configurations



Press the **activities** button  to access the 21 activities directly. Alternatively, press "Select by Objective" in the bottom right hand corner of the window to browse through the Key Stage 3 Objectives and find the activity, or activities, most relevant to the topic you want to cover. Note that the contents of section 1 of the Key Stage 3 Objectives have been greyed out, as these more general objectives are covered throughout all the *Toolkit* activities.

Before selecting an activity you can launch teacher's notes by pressing on the teacher's notes PDF icon underneath. Once an activity is in use you can access the **help** text by pressing  or the **configuration panel** by pressing .

The options in the configuration panel are different for each activity, consisting of various on/off buttons and other settings that you can scroll through by pressing and dragging on the adjacent downward arrow. Some settings can be altered by pressing in the box and typing in a new value. For example, in the configuration panel for the function machine you can press and drag the arrows to switch between 3 modes ("number", "algebra" and "squaring"), select a denominator where applicable, change the number of function screens, and alter the units of increase for the function machine number scrollers. You can also turn the inverse function machine and the table of results on or off. Because some of these settings are interrelated, the help text clarifies anything that isn't obvious from the panel itself: for example, you can't enter fractions in "squaring" mode.






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The toolbar containing all the navigation buttons and tools is available from anywhere in *Toolkit*, so switching to a different activity or setting is always quick and easy.

If you want to hide the whiteboard display at any point, use the **blank screen** button  to make the whole board go black. Press anywhere to return in the same place. If you want to hide the activity you're using whilst continuing to use the drawing and measuring tools, press and hold the arrow next to the **activities** button  and select the **white screen** option . Press the white screen button again to return to the activity in the same place.

## Help text



Press this button to bring up help for the activity you're using. This explains how to use the activity, including clarification of any options available in the configuration panel that are not self-explanatory.


## Teacher's notes


Access the teacher's notes by pressing the teacher's notes PDF icon before entering an activity.

The teacher's notes provide lesson ideas for Years 7, 8 and 9. These are not necessarily full lesson plans, but they aim to suggest a starting point for using *Toolkit* to deliver the curriculum objectives at each level.


## Drawing tools

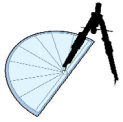


Wherever you are in *Toolkit* you can use the pens, highlighter and compasses to add working that will be preserved when you change between activities. To delete all of this working press on the bin , or use the eraser (see below) to remove it bit by bit.

Press the **free pen tool** button  to write or draw freely on the board. When a drawing tool is selected, you won't be able to access any of the controls or buttons for the activity you're using. To put the drawing tool down, press on the same button again.

To select the other pen tool, the highlighter or the eraser, press on the small arrow to the right of the free pen tool button and hold it down. Move over the tool you want and release.


The **straight line pen tool** button  allows you to press and drag on the board to draw straight lines. To change the colour or the thickness of the lines you draw with either of the pen tools, press on the cog to the left of the icon and alter the settings in the new window.




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To use the **highlighter**, hold down the arrow and select . You can change the colour of the highlighter and the level of transparency by pressing on the cog to the left of the icon and altering the settings in the new window.

To use the **eraser**, hold down the arrow and select . Press and drag this around the board to delete what you've drawn selectively.

Press  to display the **compasses** on the board. The circle with the cross inside is the point around which the compasses will rotate. Drag on this to reposition the tool. To change the radius, drag on the arms to extend or shorten them. Once you are happy with the settings, press and drag the red circle in the middle to draw.


## Measuring tools






To use the **protractor**, **ruler** and **set square** tools, press the appropriate button on the toolbar. All three measuring tools can be moved around the board by dragging near the middle, or rotated by dragging near the edge. When a measuring tool is positioned over the top of the controls for an activity, you won't be able to access them. To put the measuring tool down, press on the same icon again on the toolbar.

## Draggable objects



Press the draggable objects button  to display a list of options for number, letter and operations cards. Drag any of these cards from the list to use them. Any cards you position around the board will be preserved when you change activity. To delete them, drag them onto

the bin icon on the toolbar . Press  again to close the list of options (NB: while the list is displayed, none of the activity buttons and controls are available). When the list of options is showing, you can select a group of cards by pressing anywhere on the board and dragging the rectangle that appears around them. You can replicate the group by pressing "COPY" at the right hand end of the list, or delete the group by dragging it onto the bin .

## Paper



This button switches on and off a background grid of squared, lined, dotted or isometric paper. Press on the cog icon to the left of the button to select from the six grid arrangements available. Note that some activities already have specially designed grids that can be turned on and off (*Symmetry tool* and *Transformations*).