



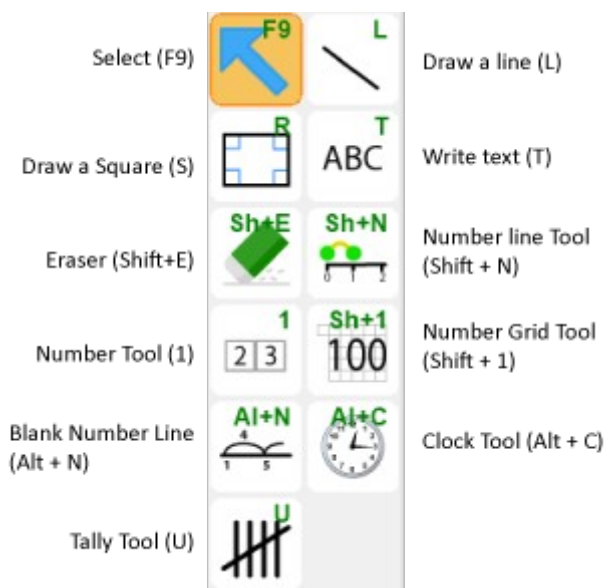
## 2. Numbers & Maths Activity

Dive into shapes, geometry and maths!

(This handout describes the activity in the example KS2 user. If you can only see a "Numbers activity" in the menu, use the "Change user" option, top right. The KS1 user has a simpler "Numbers" activity with some of the same functionality)

### Tools in the Numbers and Maths Activity

(Different tools are displayed for each activity. If you entered the work-screen via a different activity, you can switch at any time by clicking the button at the top left with a green background)

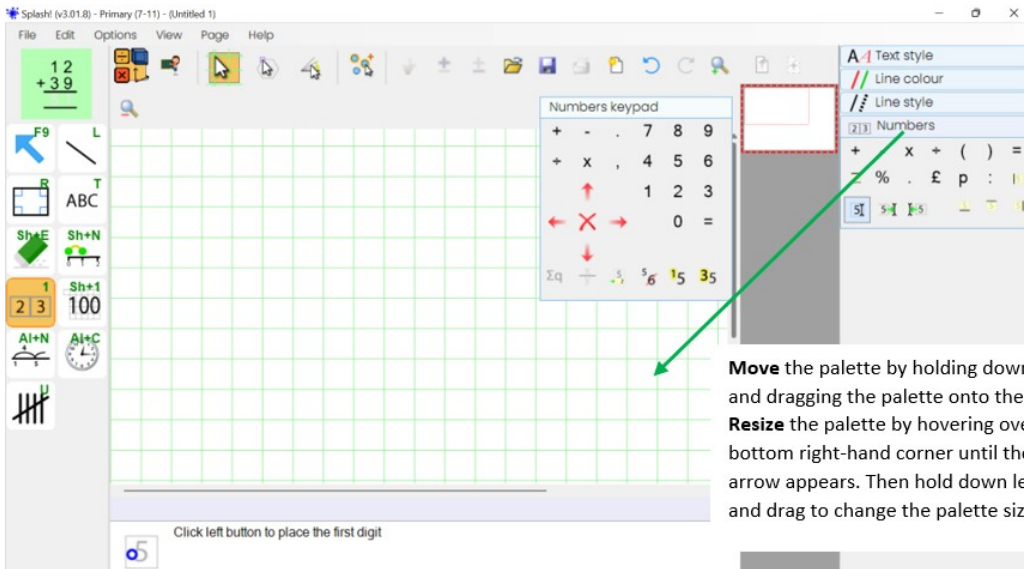


The green number or letters above each tool icon are the short cut for that tool

### The Number Tool (1)

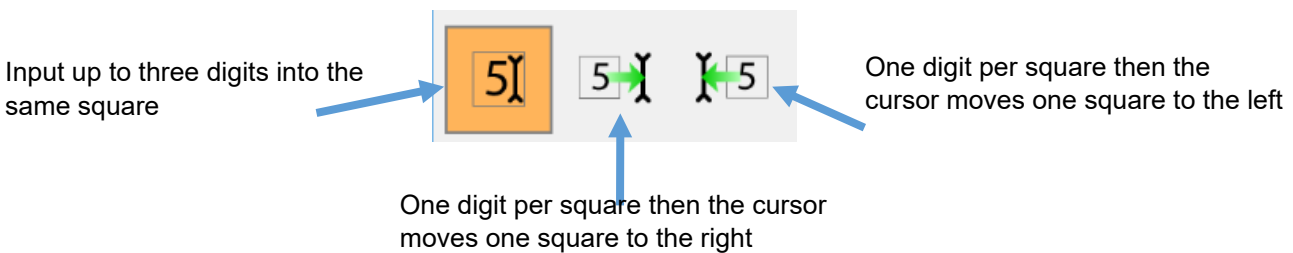
Select the Number Tool on the left side of the screen

If the user has chosen "Pointer and Mouse" in accessibility settings, this will bring up the "Numbers" and "Numbers Keypad" palettes on the right side of the screen:

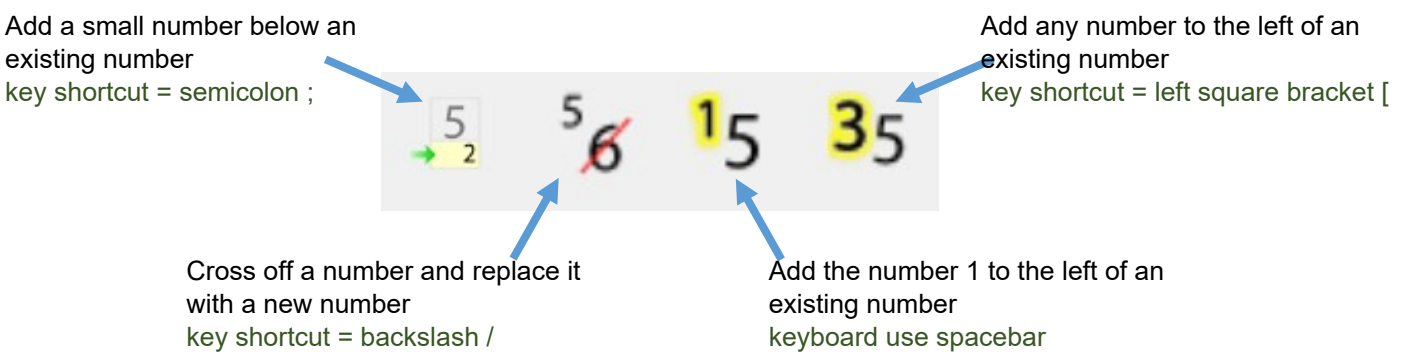


**Move** the palette by holding down left click and dragging the palette onto the page.  
**Resize** the palette by hovering over the bottom right-hand corner until the resizing arrow appears. Then hold down left click and drag to change the palette size.

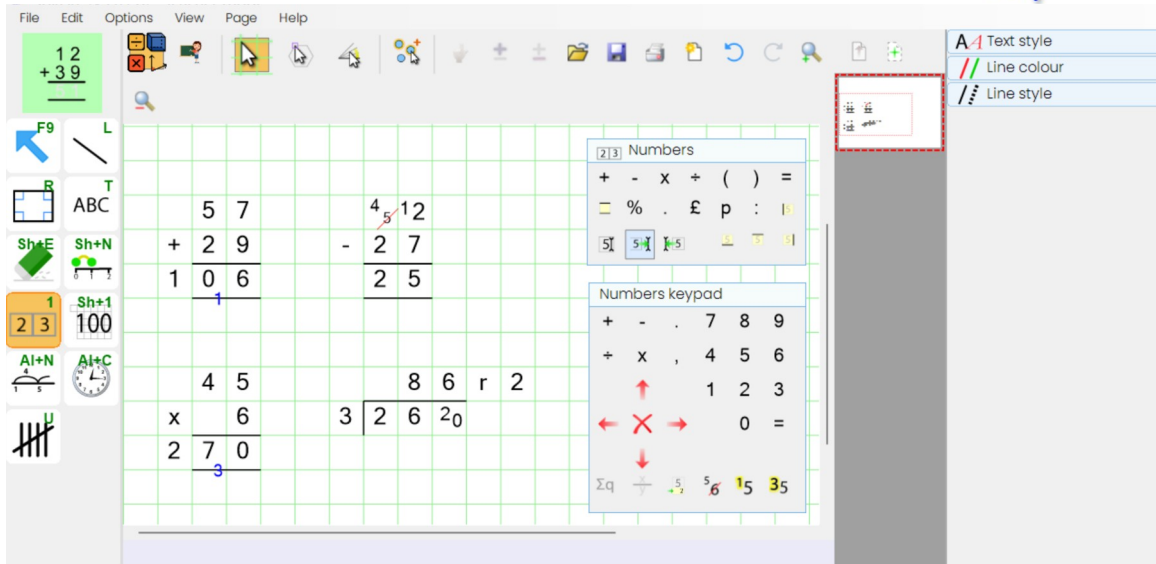
Numbers can be typed using the normal keyboard, or pointer users can use the button in the Numbers palette. There are three “auto move” buttons on the Number Pad to help you to input numbers more easily:



There are four buttons on the Numbers Keypad to support users when carrying out addition, subtraction, multiplication and division calculations:



Use both the Numbers Pad and the Numbers Keypad to set out calculations. The lines for the answers can be added using the buttons in the Numbers palette. There is one button to add/remove a line on each of the 4 sides; and a button which adds both top and bottom lines at once for an answer.

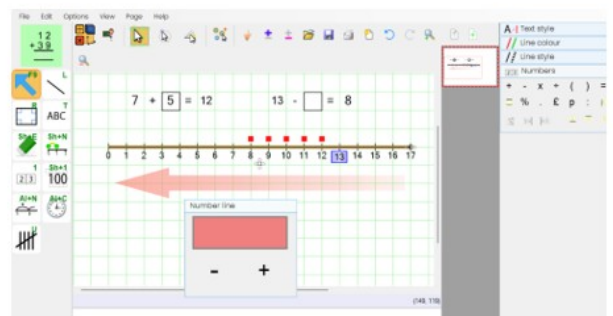
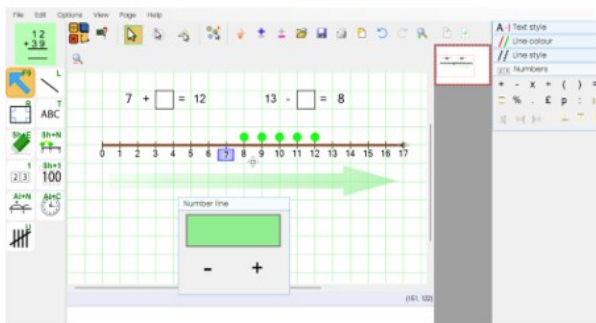


If you can't type numbers or the palettes are missing make sure that the Number Tool is selected

### The Number Line Tool (Shift+N)

This number line allows you to count on and back to any number including minus numbers.

1. Select the Number line Tool
2. Place a number line on the page by clicking at each end of where you want it to appear.
3. Choose a number to start counting on from by a single left click on the line
  - A blue square will appear on the selected number
4. Use the space bar to count forwards
  - A green circle will appear each consecutive number as you count



5. To count backwards from a given number, press the (minus) key.
6. This time a red square will appear as you count backwards
7. Use the space bar to count again
8. To count forwards again select the "+" (plus key)



If you select another tool and want to return to the number line you will need to reselect the number line by selecting the F9 tool, then left click onto the number line.

The F9 tool is a "selection" tool that allows you to reselect something in the workspace



## Modifying the Number Line

1. Select Teacher Mode by clicking on the icon or by the shortcut Ctrl + T



2. Double click onto the number line. This will open the number line settings box.

Change how the numbers are displayed

Choose how many jumps you want to move

Select OK when you have completed your changes

Number line settings

Basic settings **Advanced**

First number to display:

Display in steps of:

Number of these steps to:

Initial value is:  First value on line  
   
 Start counting downwards

No scrolling - user cannot count beyond displayed number

Don't allow the user to count downwards below the starting point

Number of steps to show:  Automatic

If the number of steps shown is automatic, making the number line larger will display more numbers. If you set a fixed value, then making the line longer or shorter will move the values further apart or closer together.

OK Cancel

Click on the advanced tab to highlight or label numbers or use decimal numbers.

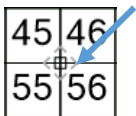
Select this to stop the numbers from scrolling beyond the displayed number



Remember to return to User Mode by selecting the user icon, or using the shortcut Ctrl + U, to use the number line again and save your document

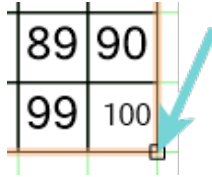
## The Number Square Grid (Sh+1)

1. Select the number square tool
2. Left click on the page to insert the number square
  - You can move the number square by hovering over the centre of the number square and holding down left click to drag it around the page

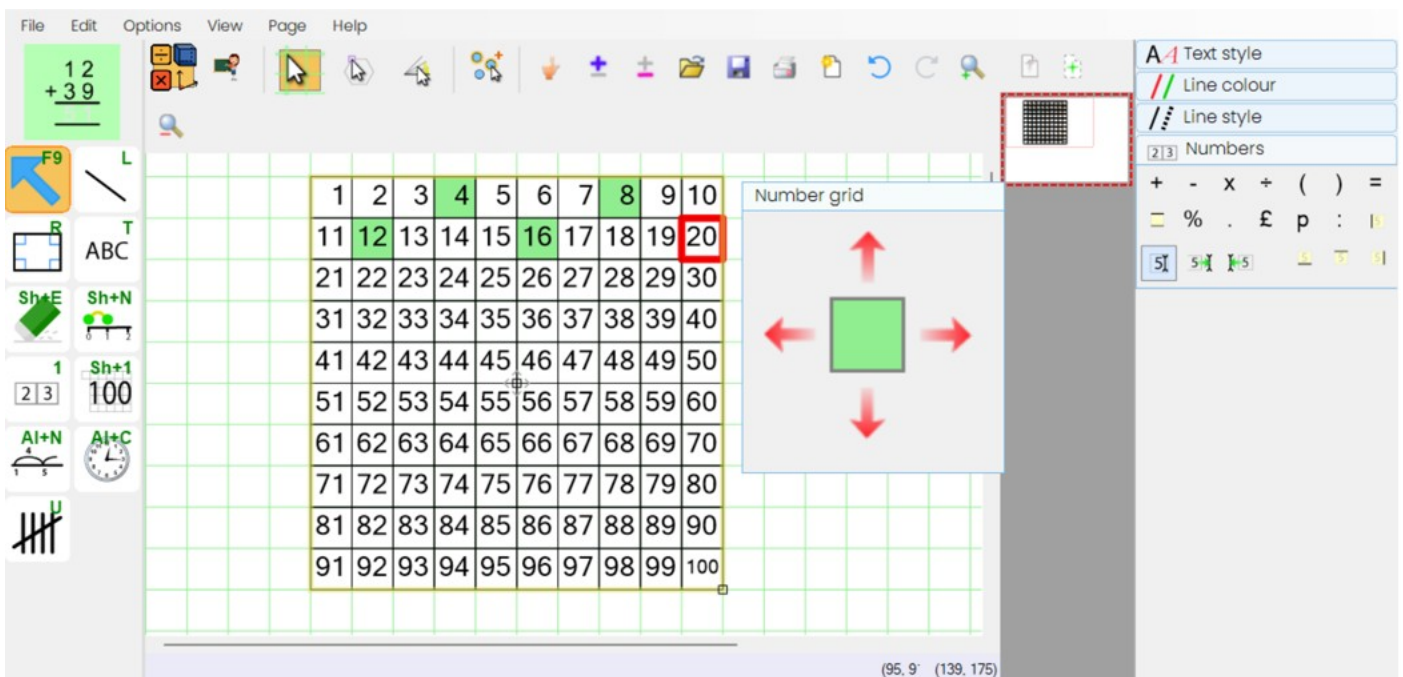



Handout 2. Using the Numbers and Maths Activity

- Resize the number square by hovering over the bottom right corner of the number square and hold down left click to resize it




3. Left click on a number and a red box will appear around the square
4. Use the palette or keyboard arrow keys to move up, down, left or right
  - A floating palette for the number grid will appear if you have selected "mouse/pointer user" in accessibility options
5. Press the space bar or the green square on the palette if you want to colour in the number and press it again if you want to remove the colour



If you select another tool and want to return to the number grid left click on the F9 Select tool  and then left click on the number grid.



If you accidentally add another number grid you can either use the eraser tool or select the undo tool  or Ctrl + Z to delete it.

### Making changes to the Number Square:

1. Click on the Teacher Icon or use the shortcut Ctrl + T to go into Teacher Mode
2. Select the Number Square
3. Double click on the Number Square
4. This will open the Number Square Grid Settings:



Change the colour of selected numbers

Edit the numbers in the number square: colour and remove numbers

Change the number of rows and columns

Change the number grid to a multiplication grid

Select ok when finished editing the number square


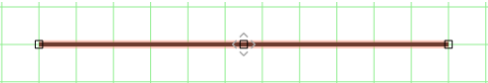
5. After you have made changes, select OK and return to User mode to carry out and save the activity.



Remember to reselect the number square grid by using the F9 tool to continue working

## The Blank Number Line (Alt+N)


The Blank Number line can be used to work out a range of maths problems including addition, subtraction, multiplication, division, questions about time etc.

1. Select the blank number line tool   
Keyboard users press ALT + N to select the blank number line tool
2. An on-screen palette will appear for mouse/pointer users  
Keyboard users follow the instructions in blue text
3. Left click on the page where you the number line to start  
Use the arrows to move the pointer on the screen and press space bar to start the line
4. Draw a line across the work page and left click again when it is finished  

5. Double left click on the line to create an arc and move the mouse along the line and left click again when it is finished  
Use the "+" key to increase the line, or "-" key to decrease the line, and press enter to finish the line



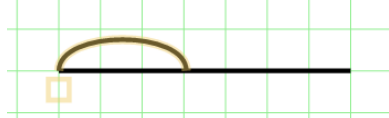
If you want the line to start backwards press “-“key and use the left arrow to extend the line




6. Select the green arrow  on the palette and an empty box will appear

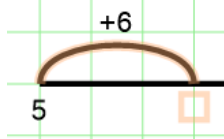
A box is created when you press “enter”

You can write numbers or words into these boxes (there is no limit to the length of a number)



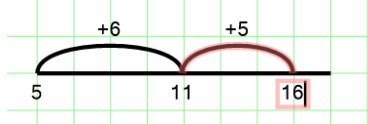
7. Press the green arrow  again to move along the arc to fill in all the numbers of the sum

Press “enter” to input numbers along the arc



8. To create another arc press the  button













Double click on the number line to create a new arc



### Blank number line palette functions:

Blue text for keyboard users.

Start a new arc  
(space to start, arrow key to extend, enter to finish the arc).

Blank number line				
7	8	9		
4	5	6		
1	2	3		
0				
				

Select to start an arc from the right.  
(“-“ minus key)

Select to lengthen or decreased arc length.  
(“+“ or “-“ keys )

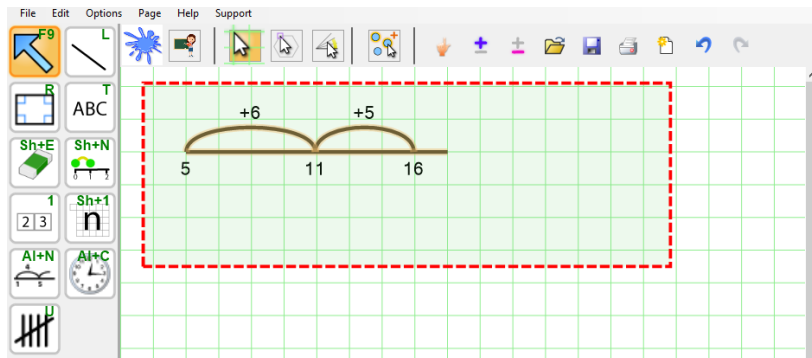
Add a box to input a number.  
(enter)

Tab within a box for editing.  
(arrow keys)

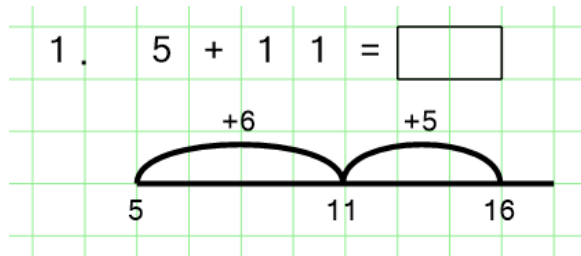
Tab between arcs and the baseline or between the boxes.  
(use tab key)



you draw your number line and want to move it select the F9 tool, then hold down left click whilst moving the mouse over the number line. This will create a red selection box and will highlight all that is within it:

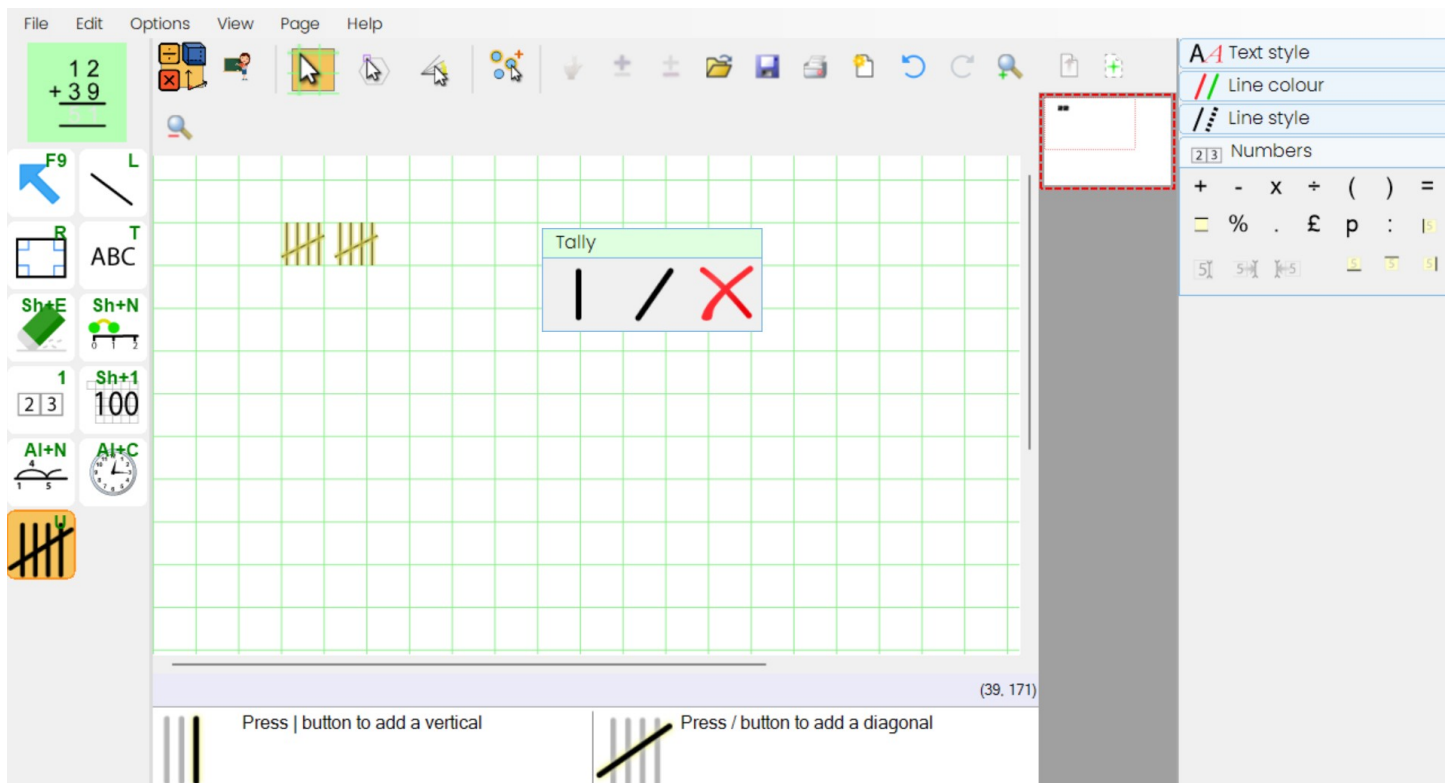


It is then possible to move all that is selected into a different place (e.g. so you can set out the calculation above):



### The Tally Bar (U)

Select the Tally Bar tool and click on the screen to start. If the user has select “Mouse/Pointer” options then the tally bar palette will appear on the screen. For Keyboard users use the \ key to create the vertical lines and the / key to create the diagonal line. The delete key will remove each line one at a time.



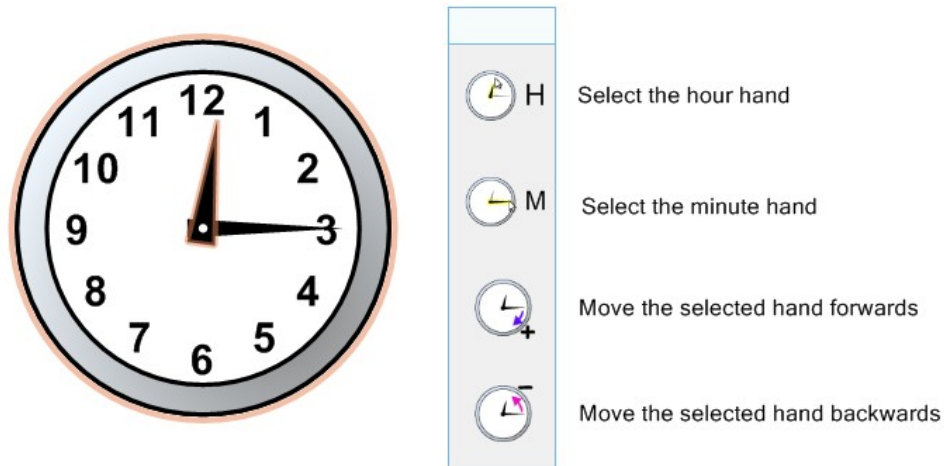


## The Clock Tool (AL+C)

The hands on the clock can be moved forwards and backwards in increments of 1, 5 or 15 minutes. The hands can be set up to move together as the analogue clock hands do or independently of each other.

Select the clock tool and left click where you would like it to be positioned. The clock can be resized after it has been placed onto the page. If you select another tool and want to return to the clock, press F9 and select the clock. For mouse/pointer users an on-screen palette will appear.

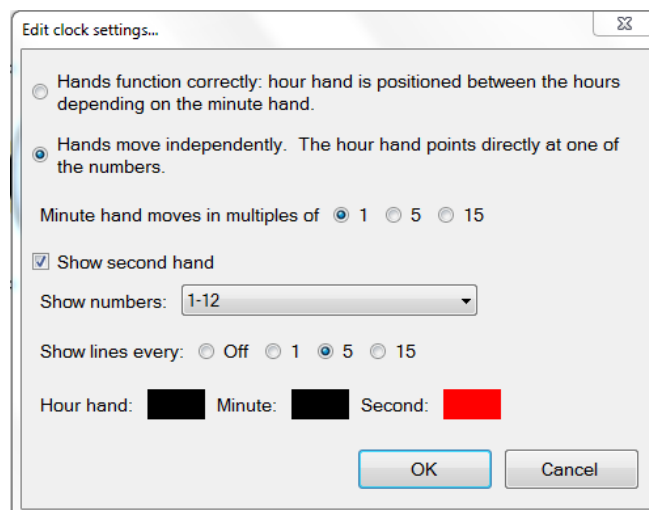
### The Clock Tool with on-screen palette



Keyboard users: press "Enter" to move between selecting the hour hand and the minute hand. Press "+" to move the hand forwards and "-" (minus or hyphen) to move the hand back.

### Personalising the Clock Tool

The clock tool can be personalised for a specific activity. To do this, go to teacher mode by selecting the teacher icon or pressing "Ctrl T". Double click on the clock. This will open the Edit Settings box:



Select the settings that you need and select "OK". Return to User Mode to carry out the activity.



*The on-screen palette will only appear in User Mode*