






Dive into shapes, geometry and maths!

3. Geometric Drawing Activity

There are more than 20 tools available to the user on the Geometric Drawing Activity. There are 12 shape tools, 3 writing tools, 4 transformation tools and 2 measuring tools and a cutting tool.

Start by selecting the “Edit Grid and Background” button at the top of the screen  or select Page – Edit Grid and Background. This enables you to choose squared or isometric paper and also change the size of the grid.

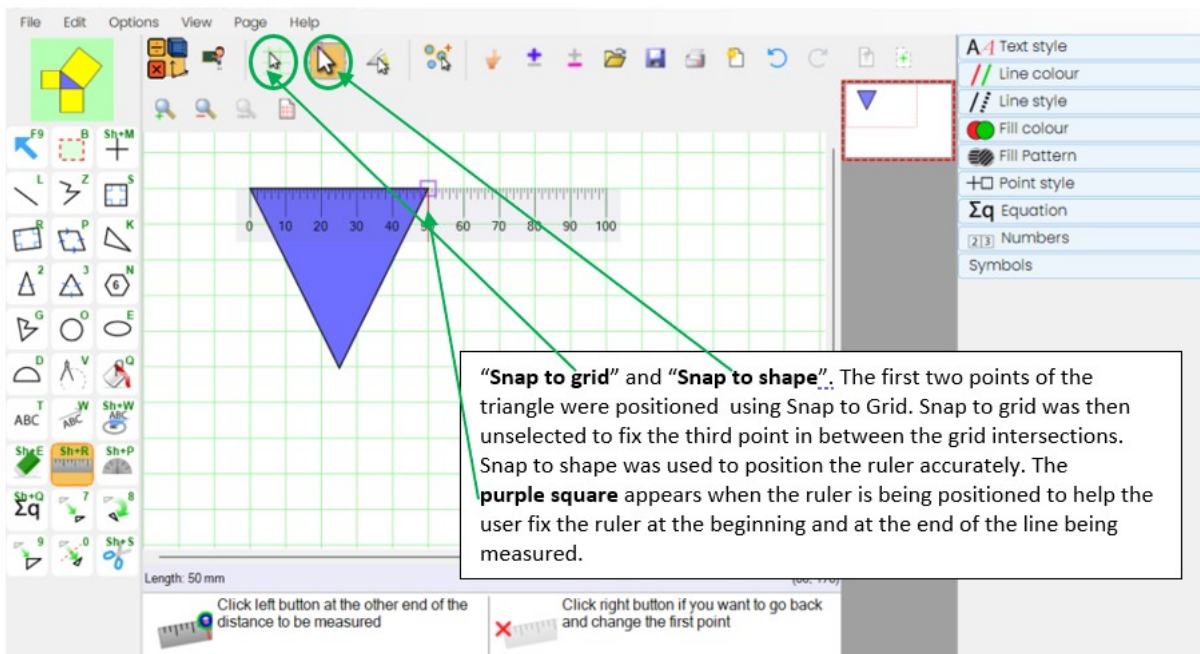
 “Snap to Grid” will ensure that your shape starts at the nearest grid intersection.

 “Snap to Shape” will enable your protractor or ruler or another shape to snap to a corner or side of any existing shape.

Creating standard and irregular shapes

Select a drawing tool or use the shortcuts in green (Z, S, R, P, K, 2, 3, N, G, O, E, D), then click in the picture area (or press space) to start drawing and to place each subsequent point.

For shapes which can have any number of points (eg G: irregular polygon), double click the mouse or press “Return/Enter” on the keyboard to finish it off.



To remove the ruler, click onto the ruler tool. If you want the ruler to stay on the screen double click onto it. In this way you can have several rulers or protractors on the screen at the same time. Rulers and protractors will show on printed out work.

If you need to delete a line that you have partially drawn, right click on the mouse or press “Escape” on the keyboard.



You can turn “Snap to Grid” on or off half way through creating a shape if you need to place something outside the grid lines.



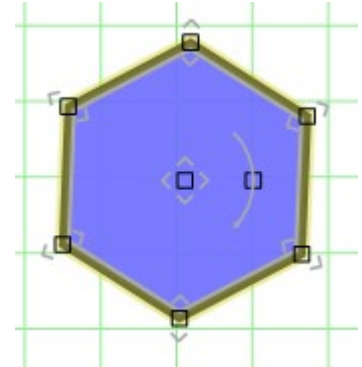
Editing shapes

To modify a shape on the page, first use the **F9** tool to select it, and then adjust its style or colour using the palettes on the right. You can alternatively use the **Fill Tool (Q)** to colour (solid) shapes by clicking on them when that tool is selected.


You can move shapes by selecting them with the F9 tool, and then clicking (keyboard users press Space) on the handle in the middle:

(The other handles can resize and rotate).

Alternatively the **Move tool (7)** can be used, which requires less precise control. Using this tool click anywhere on the shape to be moved; move the pointer and then click again to place it in the new position.



There are 4 transformation tools in total. As well as move you can rotate shapes (8), reflect shapes (0) and re-scale shapes (9).

When any of these is selected, two options  are added at the bottom which allow you to choose between moving or copying your shapes.

If “Snap to grid” is on then the shape will move to other grid lines. Turn “snap to shape” off if you wish to place the shape in between the grid lines.



The Writing Tools (T, W and Sh+W)


- “T” will input text horizontally on one line – just click to start typing
- “W” will write text at any angle – first place 2 points indicating where the TOP of the text is; when typing the text will then flow on multiple lines downwards from this baseline
- “Sh-W” will add text to an existing shape. To start click the shape you want to add a label to.

Other tools

Use the **Ruler (Sh+R)** or **Protractor Tools (Sh+P)** to measure the sides or angles of your shape. By default these are removed by starting a new one, or clicking the ruler/protractor selection on the left again. They are also not included when the document is saved. You can make either of these permanent by selecting from the menu: Edit > Store in Page, after placing it.

 *Select snap to shape to make this more accurate*

The **Shape Cutting Tool (Sh+S)**: Draw a line across a shape using this tool. You can then use the move tool (F7) to move the two sections apart. Select “snap to shape” when putting them back together. This tool is useful for cutting shapes or pictures into half and quarters.

 *If you make a mistake, use the Rubber Tool (Sh+E) to delete shapes or writing*