# INTRODUCTION TO THE CABRI INTERFACE

1. STUDENT, TEACHER AND AUTHOR MODES

Cabri has three levels of access, or modes, with a different interface for each mode. The student has access only to the activity itself, while the teacher has in addition access to some tools and other objects in order to be able to adapt the activity. The author has access to the full Cabri, and creates the activity and also determines the tools and objects to which the teacher has access.

When a file (.clmc) is opened in Cabri Author mode, the three modes are shown at the top right of the window: click on the appropriate icon to change the mode. (The fourth icon toggles between full screen and window display)

Here is the full window in Author mode:
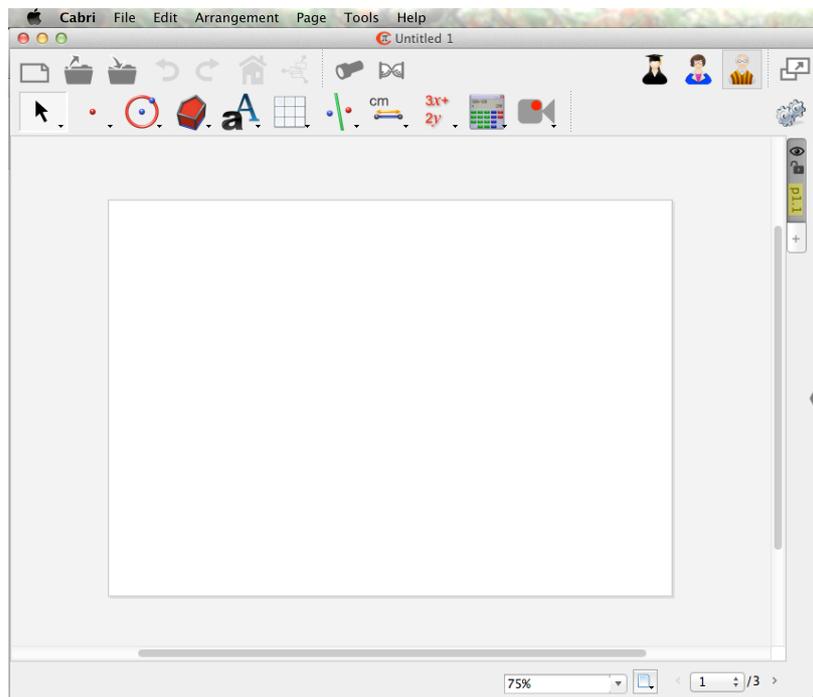
Click on the grey arrow shown on the right and a further palette will appear:

This arrow was clicked
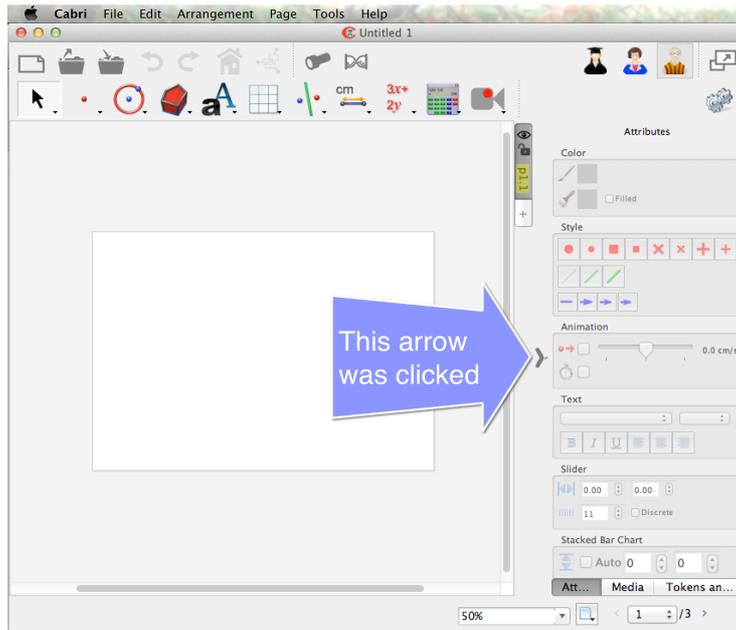
The parts of the window are labeled below:

MENUS

EXPRESS

MODES

TOOLBAR

LAYERS

WORKING AREA

INSPECTOR

PAGES
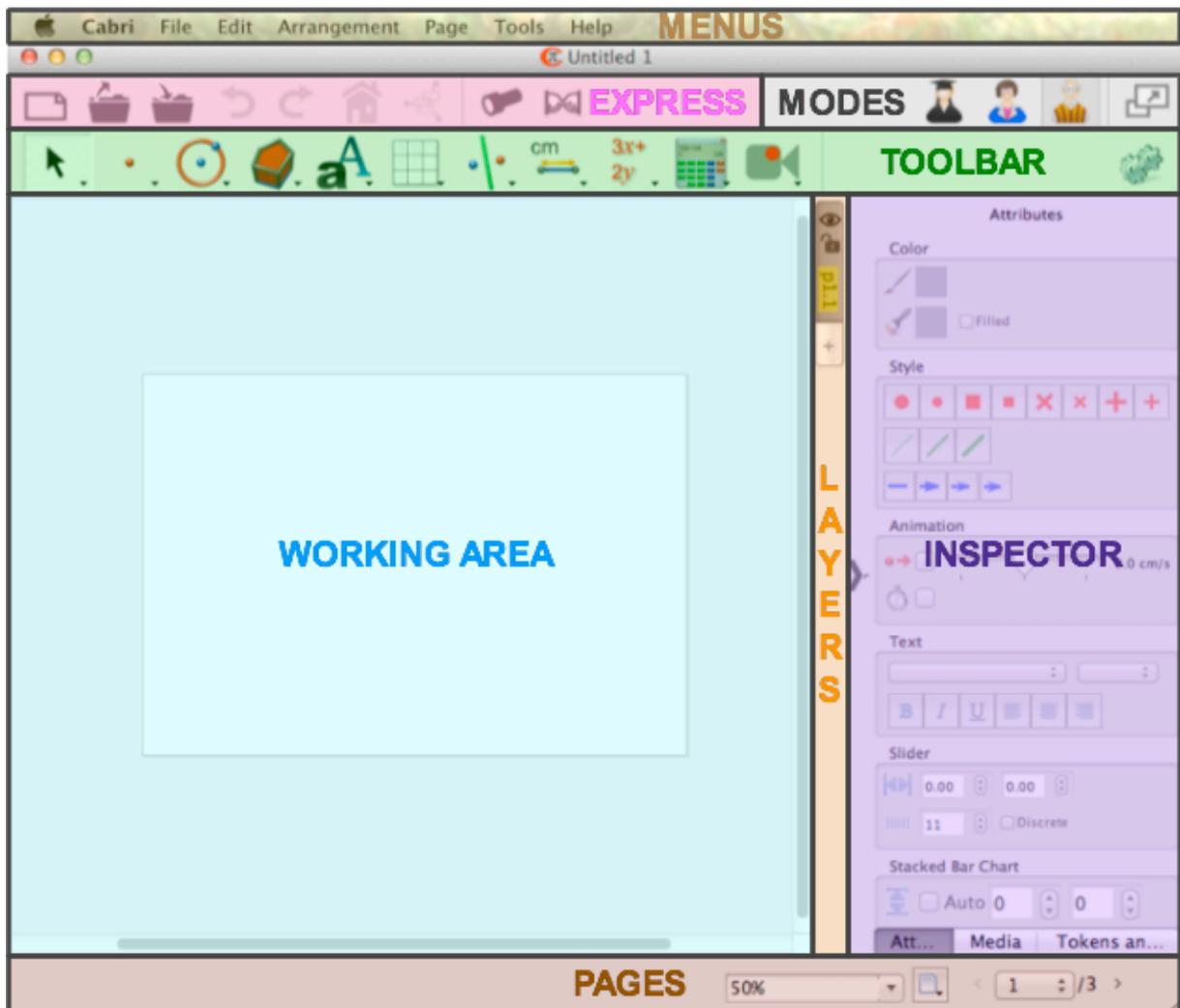
Here is the same file in Teacher mode:
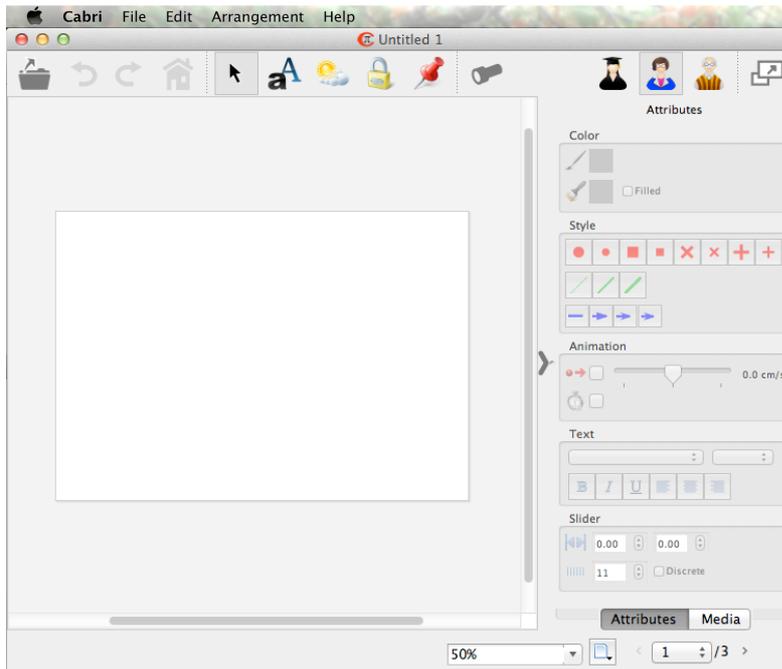
Note that there are fewer menus, different items in the express bar, no tool bar or layer bar, but the same working area (page and background) and almost the same inspector.

This is what is visible in Student mode:
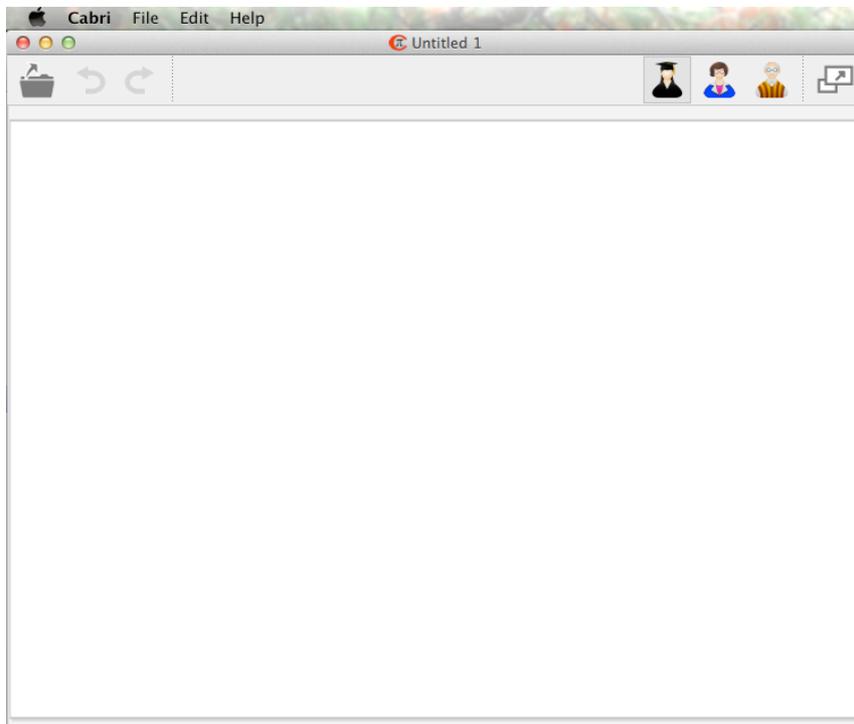
There are very few menus or items in the express bar and only the central part of the working area (the page) is shown.

Here is the first page of the Cabri Author file *layers*, in author mode. The author has used the Cabri tools to create all objects shown in the working area.
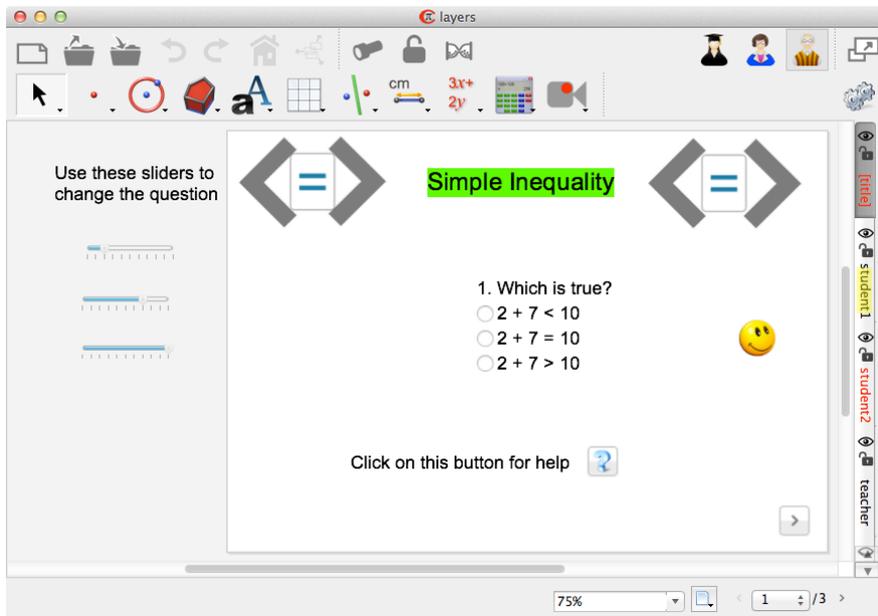

Here is the same page, in teacher mode:
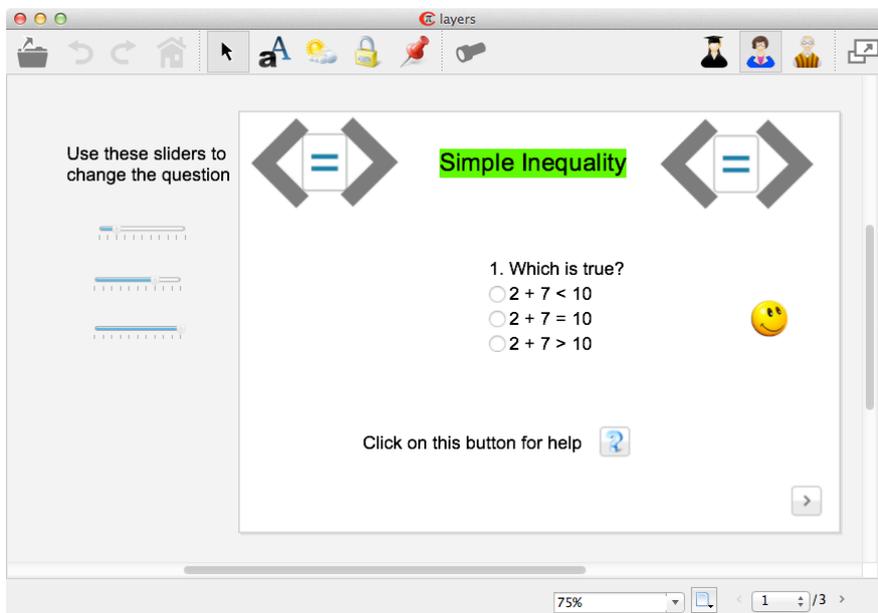
Teachers may move between pages, use the **Attributes** and **Media** panels of the Inspector (limited to any images or models that already appear in the file), and use any tools or objects such as the sliders above that are placed in the margin. Objects are not locked (unless the layer

that they are in has been locked) and may be moved and edited (although the teacher cannot edit any actions assigned to objects, or change the structure of an MCQ).

Students are shown only the page, and may only navigate by means of buttons on the page.
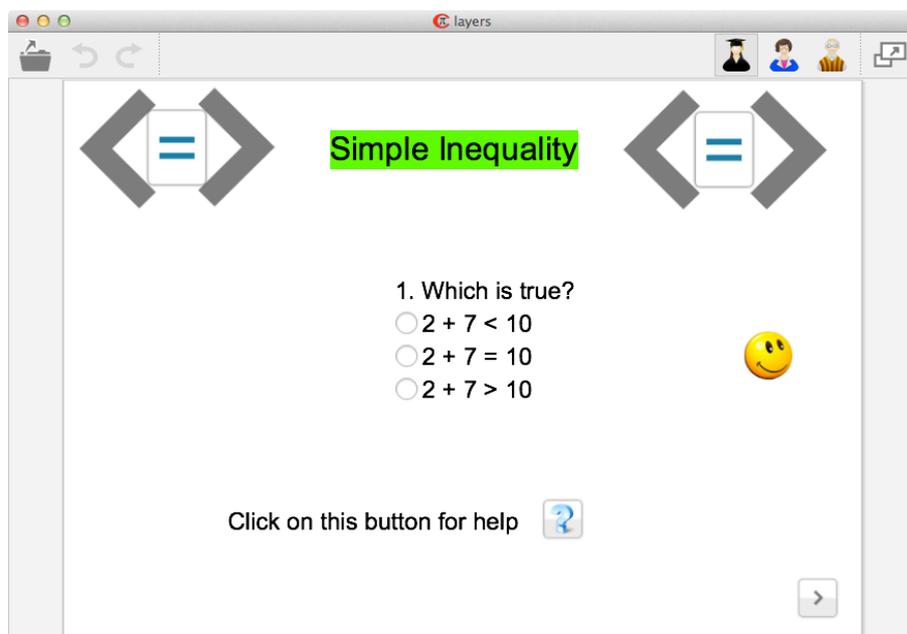
The following descriptions refer to Author mode, with an indication given when they also apply to the other modes.

2. THE MENUS

Many menu commands are standard. Specific to Cabri Author mode are the following:

File – Publish
Saves the Cabri Author activity book (.clmc) as a Cabri file (.clm).

File – Publish Collection
If a folder containing Cabri Author files (.clmc) is selected, a new folder is created next to the one selected that contains the corresponding published Cabri files (.clm). See the PUBLISHING A COLLECTION documentation for further details on creating and describing a collection.

File – Import Cabri II Plus Figure

File – Convert Cabri II Plus folder

File – Export Images

Exports all images in the top half of the **Media – Images** panel as .png files.

File – Export to SCORM

Exports the current activity books as a SCORM package, in order to be published in a VLE.

File – Activity Book Options

Opens the following dialog box. The difference between Primary and Secondary is the type of calculator made available (see **CALCULATORS AND EXPRESSIONS** documentation for further details).

File – Properties…

Sets up activity descriptions. See the **PUBLISHING A COLLECTION** documentation for details.

Edit – Clone Copied Value

Pastes a dynamic copy of a number or Boolean. Only active when a number or Boolean has been copied. See the **NUMBER** documentation for details.

Arrangement -

Enables arrangement of screen objects. See the **ARRANGEMENT** documentation for details. Also available in Teacher mode.

Page –

Operations on the current page. See section **5.5**.

Tools – Create Summary

Generates a collection index. See the **PUBLISHING A COLLECTION** documentation for details.

3. THE EXPRESS BAR

Author mode:

Teacher mode:

The Teacher mode has some tools from the Author mode express bar and some tools from the Author mode toolbar (Manipulation and Text toolboxes).

Icon	Action when selected
	Create new Cabri Author file.
	Open existing file.

|	
	Save file.
	Undo.
	Redo.
	Return page to initial view (see Page section of this document).
	Temporarily scatters apart selected text, numbers, or buttons (only available after objects are selected). e.g. Well done! Sorry, try again. Well done! Sorry, try again.
	Numbers are highlighted and hidden objects flash and are selectable.
	Animations and stopwatches are enabled (see **ANIMATION** and **STOPWATCHES** documentation).
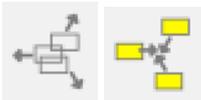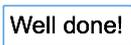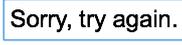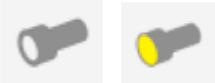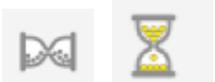
4. THE TOOL BAR (AUTHOR MODE ONLY)

| 1	2	3	4	5	6	7	8	9	10	11	12
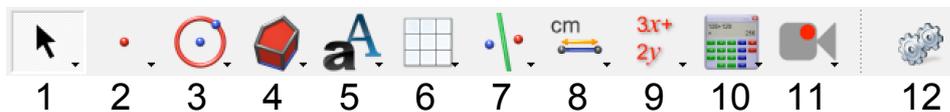
The first 11 icons on the tool bar represent toolboxes. The final icon enables tools from these toolboxes, together with some other action buttons, to be dragged onto the page.

4.1 The Manipulation toolbox

	Manipulation	
	Animate	See **ANIMATION** documentation.
	Hide/Show	
	Movement Lock/Unlock	
	Editing Lock/Unlock	
	Redefine	Note that numbers, points, and also Booleans may be redefined.
	Turn into Pattern Block	
	Turn into Tangram Tile	
	Turn into Dispenser	See **DISPENSERS** documentation.
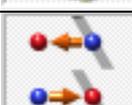
4.2 The Points and Lines toolbox
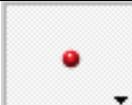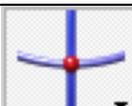
	Point	
	Intersection Point(s)	
	Midpoint	
	Measurement Transfer	
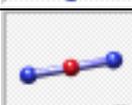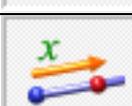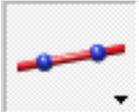
	Line	
	Segment	
	Ray	
	Arrow	
	Perpendicular	
	Parallel	
	Perpendicular Bisector	
	Angle Bisector	
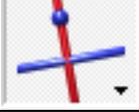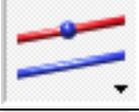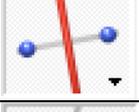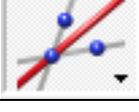
4.3 The Shapes toolbox
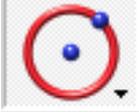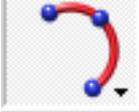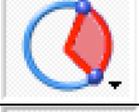
	Circle	
	Arc	
	Circle sector	
	Triangle	
	Quadrilateral	
	Polygon	
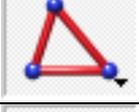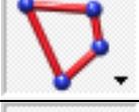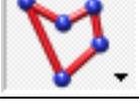
{3}	**Equilateral Triangle**	
{4}	**Square**	
{5}	**Pentagon**	
{6}	**Hexagon**	
{8}	**Octagon**	
	Ellipse	
	Parabola	
	Hyperbola	
	Conic	
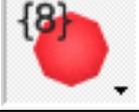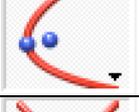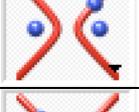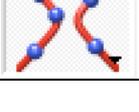
4.4 The 3D objects toolbox

	Prism	
	Pyramid	
	Cylinder	
	Cone	
	Sphere	

	Regular Tetrahedron	
	Cube	
	Regular Octahedron	
	Regular Dodecahedron	
	Regular Icosahedron	
	Net	
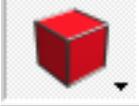
4.5 The Text toolbox

	Text	
	Input Box	See **INPUT BOXES** documentation.
	Note	
	MCQ	See **MULTIPLE CHOICE QUESTIONS** documentation.
	Number	See **NUMBER** documentation.
	Fraction	See **NUMBER** documentation.
	Slider	See **NUMBER** documentation.
	Stopwatch	See **STOPWATCHES** documentation.
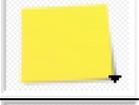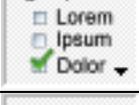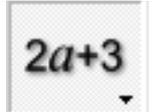
	Expression	See **CALCULATIONS AND EXPRESSIONS** documentation.

4.6 Grids
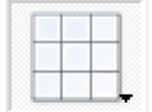
	Grid	See **GRIDS, AXES, AND GRAPHS** documentation.
	Axes	See **GRIDS, AXES, AND GRAPHS** documentation.
	Container	See **CONTAINERS AND TOKENS** documentation.
	Table	See **TABLES AND CHARTS** documentation.
	Stacked Bar Chart	See **TABLES AND CHARTS** documentation.
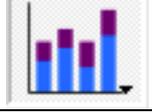
4.7 The Transformation toolbox
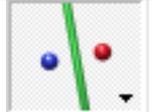
	Reflection in a Line	
	Reflection in a Point	
	Translation	
	Rotation	
	Dilation	
	Trace	
	Locus	
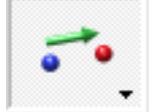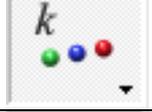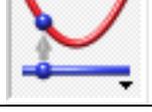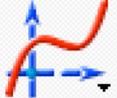
	Graph	See **GRIDS, AXES, AND GRAPHS** documentation.

4.8 The Measurement toolbox
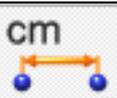
	Length	
	Distance	
	Area	
	Volume	
	Angle	
	Coordinates and equation	See **GRIDS, AXES, AND GRAPHS** documentation.
	Count	See **CONTAINERS AND TOKENS** and **MULTIPLE CHOICE QUESTIONS** documentation.
	Point Counter	See **POINT COUNTERS** documentation.
	Number of Tries	See **INPUT BOXES** and **MULTIPLE CHOICE QUESTIONS** documentation.
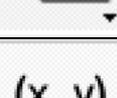
4.9 The Logical operators toolbox

	Apply Expression	See **CALCULATIONS AND EXPRESSIONS** documentation.
	Equal	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.
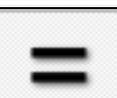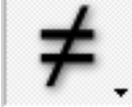
	Not Equal	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.
	Less Than	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.
	Logical AND	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.
	Logical OR	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.
	Logical NOT	See the **BOOLEANS AND LOGICAL OPERATORS** documentation.

4.10 The Instruments toolbox

	Calculator	See the **CALCULATIONS AND EXPRESSIONS** documentation.
	Compass	
	Ruler	
	Set Square	
	Protractor	
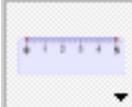
4.11 The Recording and Macros toolbox

	Record	See the **MACROS AND RECORDING** documentation.
	Initial Object(s)	See the **MACROS AND RECORDING** documentation.
	Final Object(s)	See the **MACROS AND RECORDING** documentation.
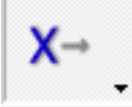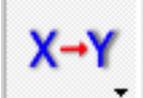
	Define Macro	See the **MACROS AND RECORDING** documentation.

4.12 The Edit buttons icon

		See the **ACTIONS** documentation.

When you click on this icon, the toolbar changes in appearance and in function. Toolboxes no longer hold tools to use, but buttons that can be dragged onto the working area and used as tools from there.

See the **ACTIONS** documentation for details of actions and buttons.

Three new toolboxes are added:

4.13.1 The Page movement buttons toolbox

	Next Page	
	Previous Page	
	Go to Page…	
	Link to…	
	Open Activity Book…	
	Print Page	

4.13.2 The Dual action buttons toolbox

	Hide/Show…	
	Start/Stop Animation…	See the ANIMATION documentation.
	Start/Stop Stopwatches…	See the STOPWATCHES documentation.

4.13.3 The Generic buttons toolbox

	Generic Push Button…	
	Generic Toggle Button…	

See the ACTIONS documentation for details of actions and buttons.

5. The Working Area

The working area contains all the objects (geometric, text, buttons, numbers, etc.).

It has two parts, as seen to the right.

It may also be made up of several layers, not all of which are visible. See the LAYERS documentation for further details.

5.1 The Page

The central white rectangular area forms the Page. The Page is visible in all modes. Every Cabri activity book will consist of one or more pages.

5.2 The Margin

This is the outer grey part of the working area, and is visible only in Teacher and Author modes. It extends indefinitely out from the page: the amount of margin that can be seen in the Cabri window is determined by the scale of the page and the size of the window.

It is basically an area to place control objects and documentation – these do not need to be hidden from the student or crowded into the page.

No geometric objects, images, or models are shown in the margin, but all other objects may be created anywhere in the working area and dragged to either the page or the margin, or may be partly in one area and partly in the other.

5.3 Tilting the View in the Page

A circle has been created on the page to the right. Right-click, hold down and drag vertically upward on any part of the page.
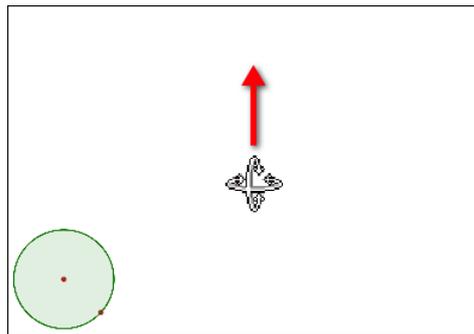
The white plane will tilt as shown.

Note that part of the plane with part of the circle is now showing in the margin: this part of the plane and circle will not be visible in the Student mode.
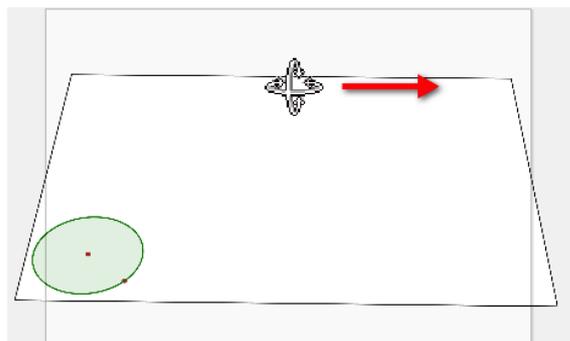
Now continue to hold and drag the cursor horizontally to the right: the plane will rotate about its center.
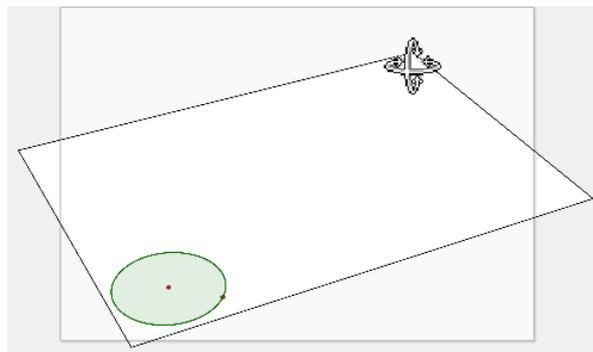
The visible page is itself composed of two parts: the plane (known as the sheet) and the background.
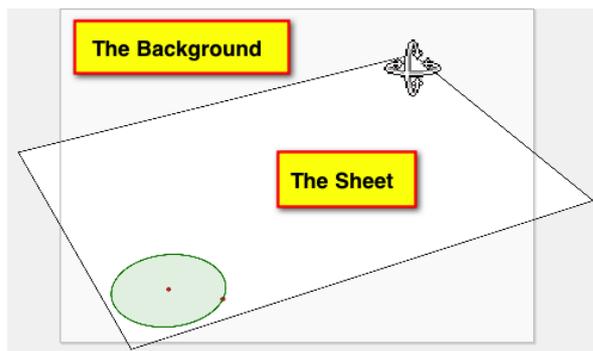
Geometric objects, images, and models may only be created on the sheet, and will move relative to the page when the sheet is tilted or rotated. Any labels given to such objects will also move. An exception is if the current layer is a foreground layer, in which case images will not move relative to the page when the sheet is tilted or rotated. See the **LAYERS** documentation for further details.

All other objects behave as if attached to a screen of glass covering the sheet and background. They may be created anywhere on the page (or margin) and will not change position as the sheet changes.

5.4 Working with the Page

Note that clicking on the 🏠 icon in the **Express** bar in Teacher and Author mode will return the view to the orientation in which the file was saved.

The Page menu (only available in Author mode) controls a number of features of the visible page.

Page – Lock Elevation

Prevents the sheet from being tilted in Teacher and Student mode.

Page – Lock Azimuth

Prevents the sheet from being rotated in Teacher and Student mode.

Page – View from Above

Moves the sheet so that it is viewed from above.

Page – Reset Stopwatches

Sets all stopwatches on the page to the value 0.

Page – Limit Move to Sheet

When activated, this prevents objects from being moved off the sheet in Student mode, and, if layers containing the object are locked, in Teacher mode.

Page – Activate Student Palette

Activates or deactivates the student palette. If active, this palette will be displayed at the bottom of the page when in Student mode:

It enables students to fill objects or text that they have constructed.

Page – Settable mode in calculator

Allows the calculator to be toggled between numerical and algebraic display. See the CALCULATIONS AND EXPRESSIONS documentation.

Page – Appearance

Opens the following dialog box to choose the appearance of the sheet and background. Images may be chosen from file and either stretched or tiled.
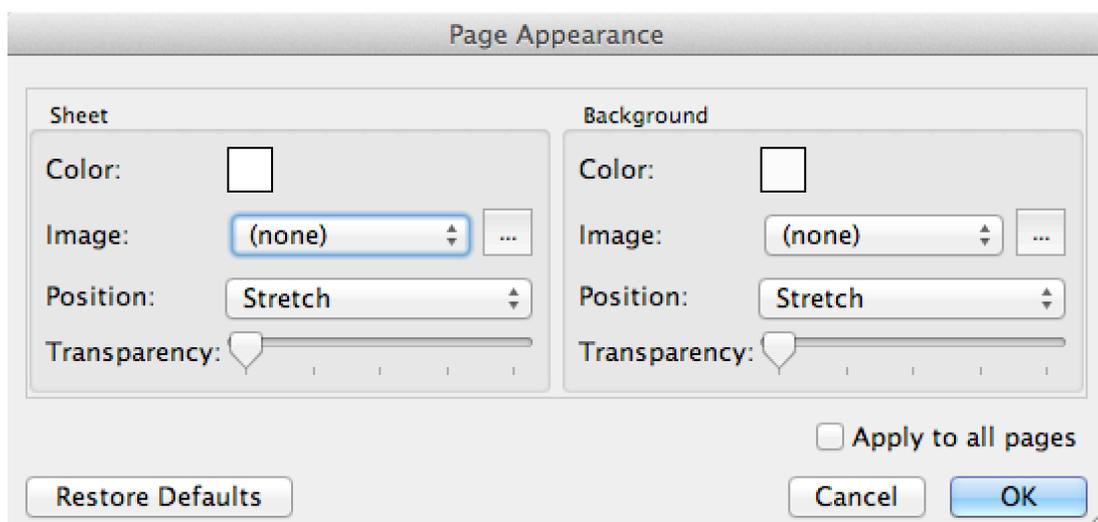
Page – Action on Load

Enables actions to be attached to the page which will be performed whenever the page is opened. See the **ACTIONS** documentation for details.

6. THE INSPECTOR

The Inspector has three panels. Click on the appropriate tab at the bottom to show each panel.

6.1 The Attributes panel

Select an object (or multiple objects by pressing `shift` or using a selection rectangle) and then use this panel to change the attributes of the object or objects.
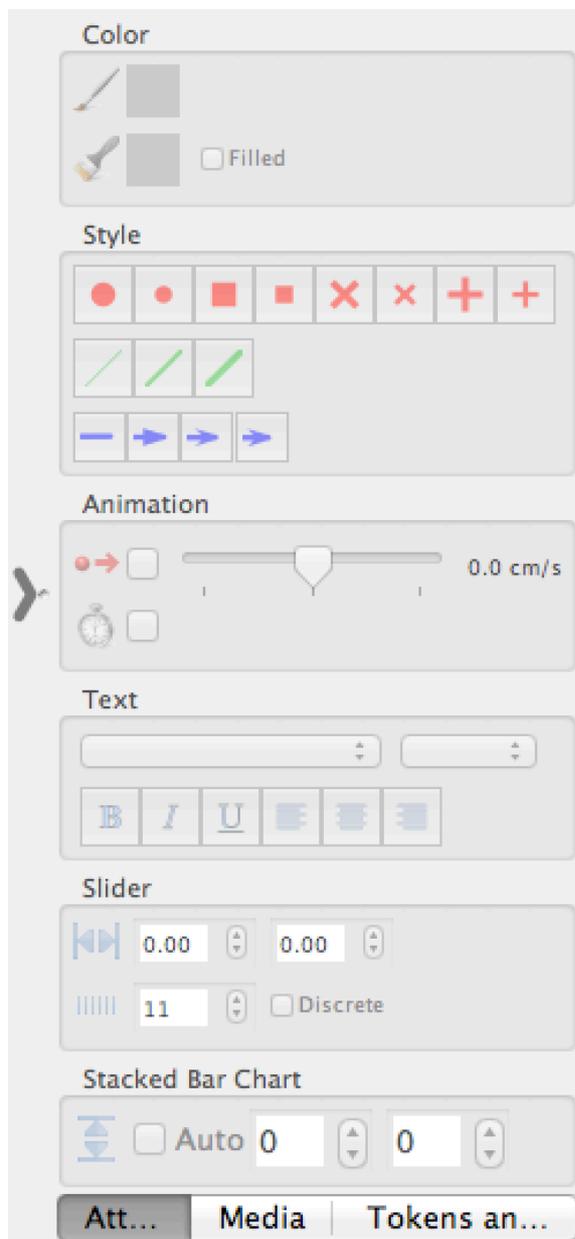
Function

Color and fill of objects and text.

Appearance of points.

Thickness of lines.

Tip of arrows.

See **ANIMATION** documentation and **STOPWATCHES** documentation.

Change text attributes. When you start a new file, or if you have the text tool but no text is selected, this will change the default font for future text in the file.

See **SLIDERS** documentation.

See **TABLES AND CHARTS** documentation. Not available in Teacher mode.

6.2 The Media panel
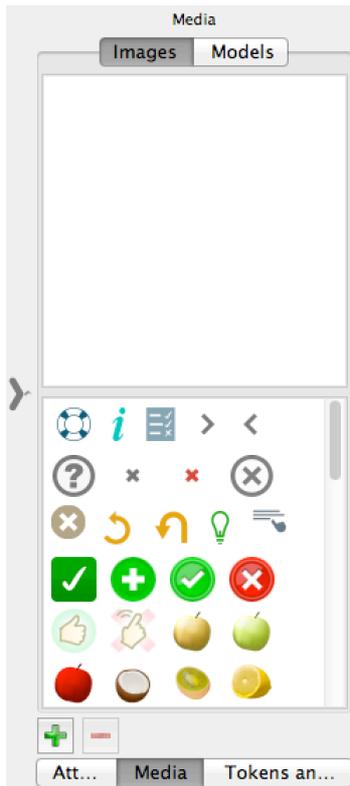
This allows 2D images and 3D models to be attached to appropriate objects on the page.

See the **MEDIA** documentation for details.

6. 3 The Tokens and Containers panel
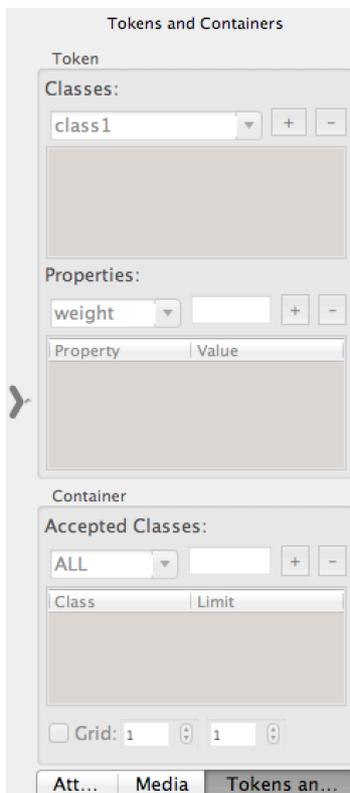
This allows tokens to be created, given certain properties and to be related to containers.

See the **CONTAINERS AND TOKENS** documentation for details.

7. THE PAGES BAR (TEACHER AND AUTHOR MODE ONLY)
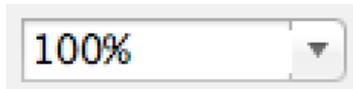
| 100% | ▼ | 🗋 | ‹ | 1 ⇅ /3 | › |

|	
100% ▼	Zoom on the page. These are the possibilities: select Page to ensure that the entire page is shown, and select Contents to show all of the margin that is being used.	200% 150% 125% 100% 75% 50% Page Contents

🗋

Click on the bottom triangle to display.
Author options:

    📄 Insert New Page
    📄 Duplicate Page

    📄 Move Page Forward   ⌘PgUp
    📄 Move Page Back   ⌘PgDown

    🗑 Remove Page

Teacher option:

    🗑 Remove Page
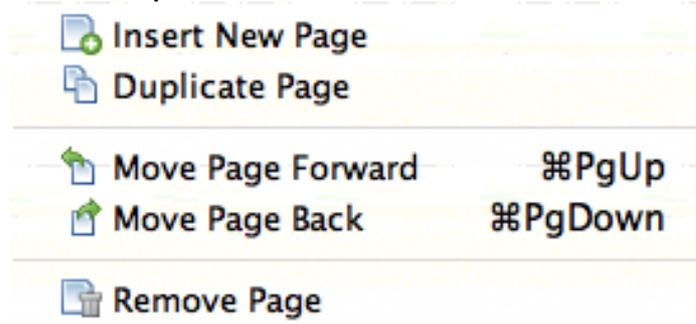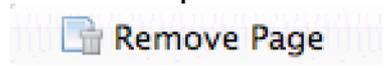
‹ 1 ⇅ /3 ›   Use the arrows or the scroll box to move to different pages in the activity book.