

RM Math Framework Edition™



Easiteach Math Training Guide

rm math ™
FRAMEWORK EDITION

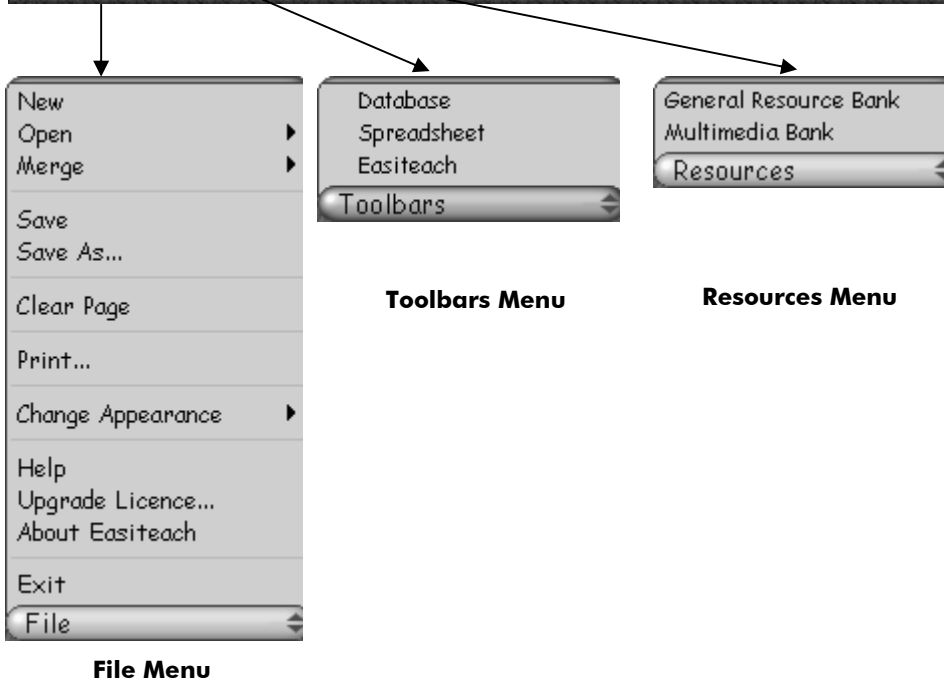
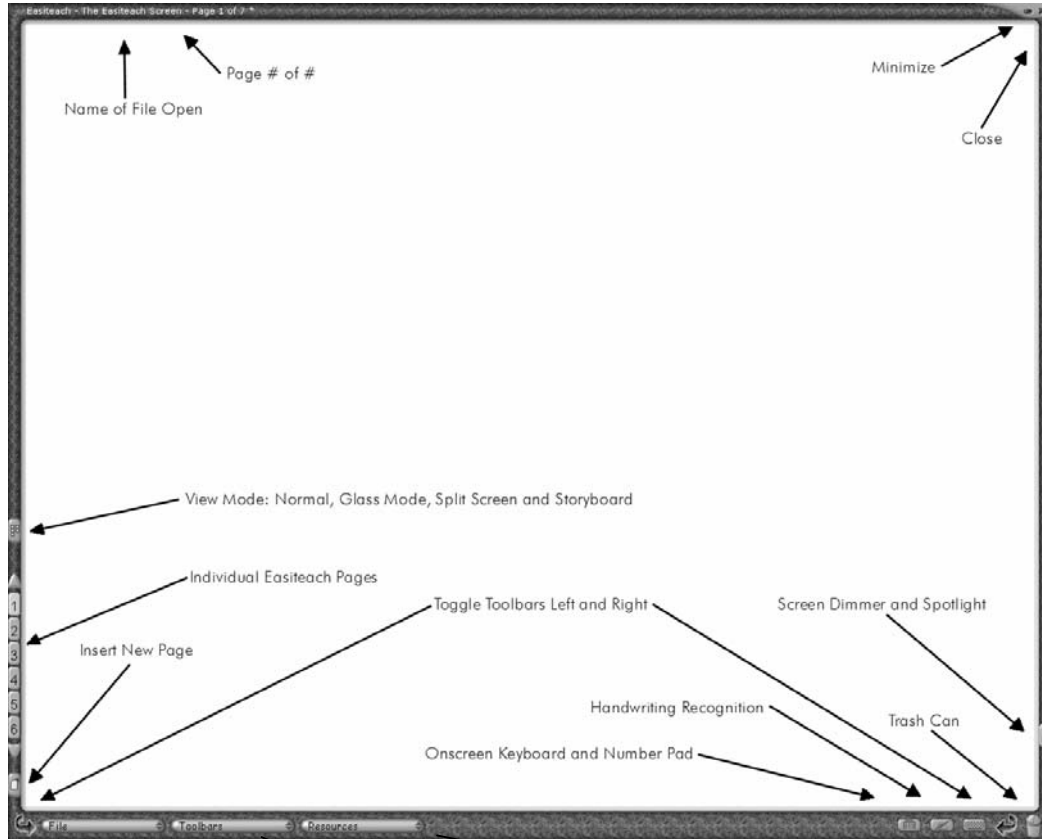
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The Easiteach Screen

To run Easiteach, click Start, All Programs, Easiteach, Easiteach. You will see the following screen:



The Easiteach Interface — Key Features



View allows you to change from **Normal** full page view to **Storyboard View** or **Glass Mode**, both described later in this module.



The **Fade Easiteach Screen** feature allows you to dim or fade the projected image. The **Spotlight** then enables you to focus the class to focus on a particular area of the screen. To go back to the normal screen after using the spotlight, make a left mouse click.



New page on the bottom left hand side adds a new page to the current Easibook.



The **Switch toolbars** arrows at the bottom of the screen allow you to switch the toolbars to the opposite side of the screen. This is particularly useful when using the whiteboard in front of a class so you do not need to lean across the board.



Drag objects to the **Trash Can** in the bottom right hand corner to delete them.



Show/Hide Keyboard Turns the onscreen keyboard on and off.



Handwriting Recognition allows handwriting to be automatically recognized and displayed as text, described further later in these training notes.

The File Menu

Use the **File** menu to create a **New** or **Open** an existing file, known as an Easibook. The **Open** option allows you to open an Easiteach file. From **Open**, you can either **Browse** the computer's hard drive or the network, or go straight to **My Documents**. **Examples** enables you to open one of the example files installed with Easiteach.

The **Save** option saves the Easibook you have open. Use this when preparing screens in advance ready for reopening in front of the class. The **Save As** option could be used to save a file that has been changed when you do not want to overwrite the original. For example, you may want to save a screen the class are part way through, so you can come back and continue in the next lesson from where you left off.

Clear Page clears the page that is open.

The **Print** option allows you to print one or all pages from an Easibook. This could be particularly useful to give students handouts before or after the lesson.

Change Appearance allows users to choose between two different interfaces: **standard** and **graphic**. There is no difference in functionality between the two. The graphic interface has a more colorful appearance.

Help gives you access to the manuals for the various components of Easiteach Studio.

Use **Upgrade License** to upgrade your product or renew an expired license.

About Easiteach enables you to see the version of Easiteach installed.

Exit closes Easiteach.

The Toolbars Menu


The Toolbars menu will list the options you have licensed.


- The **Easiteach** option allows you to display or hide the main Easiteach toolbar.
- **Easiteach Math** is accessed via the Toolbar menu.
- **Spreadsheet** and **Database** are accessed from the Toolbar menu.


Easiteach Math Tools





The **Easiteach Math Tools** are a full range of specialized tools to enhance the teaching of math skills and processes. The tools include number grids, number lines, place value cards, function machine, graphs and picture resources. Each of the tools are described below. Easiteach Math also includes a **Multimedia Bank** (accessible via the Resources tab) which is full of picture resources to help you deliver Math objectives in an appealing way. Real photographs of food, clock faces, protractors, rulers etc., all add to the teaching tool's ability to hold pupils' attention during the lesson.

 **Number grids** — Each cell in a number grid can be painted and the numbers can be moved to different cells or removed from the grid. You can create number grids of different sizes, shapes and types, for example 1 to 100 grids or multiplication grids.


 **Number lines** — Number lines can be custom-made in seconds, using whole numbers or decimals. Each number can be moved around both on and off the line. You can make lines using negative numbers, or place fractions onto a line.

 **Place value cards** — These place value cards are large enough for the whole class to see; move them together and watch them stack up to form two, three or four digit numbers. Each constituent part can be painted a different color to highlight its value.


 **Function machine** — The interactive function machine allows you to deliver exciting Math lessons with far less preparation in advance. You can use it to extend activities and test hypotheses in a highly motivating way.

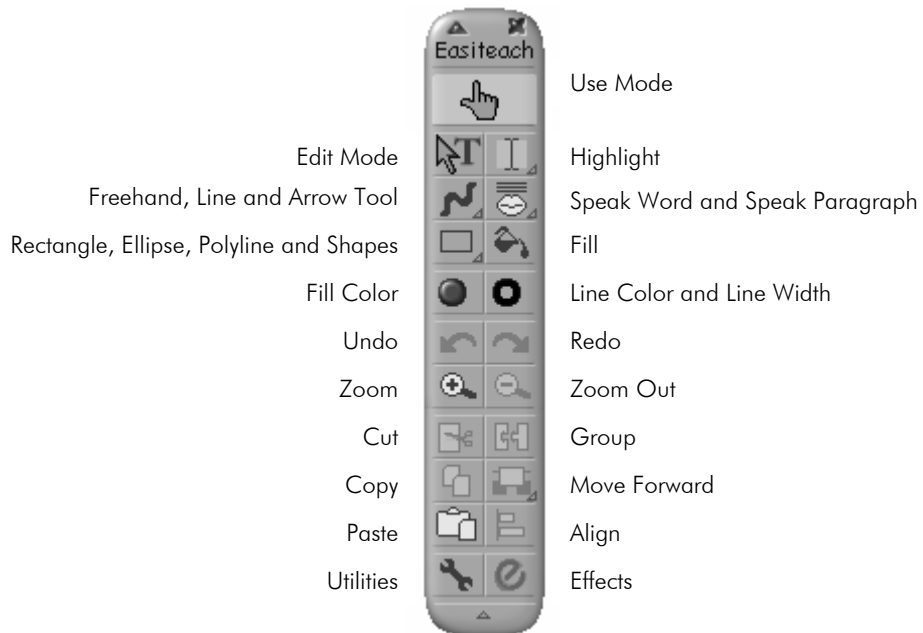
 **Graphs** — drag graph paper with common layouts and axes onto the screen in moments, or create your own using the customer graph option.

 **Circle Tool** — draws perfect circles every time.

 **Numbers, Algebra and Symbols** — symbols allowing you to type mathematical phrases. Includes Square Roots, basic arithmetic symbols, Greek letters, units of metric measure, etc.

The Easiteach Toolbar

The Easiteach toolbar allows you to use a number of tools on the screen. Use the arrows to expand , contract or minimize the toolbar. The Easiteach tools are shown below and described in more detail throughout this Guide.




Annotating the screen

Various line tools can be accessed using the Freehand line button on the Easiteach toolbar below the Edit Mode button. Press the Freehand line button to reveal all the line tools:




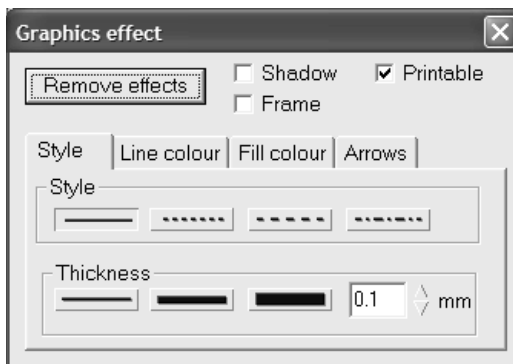
Curved Arrow, Parallel Line, Double Arrowhead, Single Arrowhead, Straight Line and Freehand Lines.

Use the Freehand line tool to write on the screen, using electronic ink to annotate text or pictures.

 The Line Color button opens a window allowing you to change color and line widths for freehand lines, straight lines, shapes, and arrows. There are 4 line widths to choose from, and 15 lines colors, with a further option for a line color of 'none'.



 Use the Effects button on the Easiteach toolbar to add more effects for the line you have selected. From here you have more choices of line style, thickness, access to customize the color and arrows.



Using Edit Mode and Use Mode to Move, Resize or Rotate Objects

Two different modes of use are available to teachers when using Easiteach in the classroom.

Use Mode



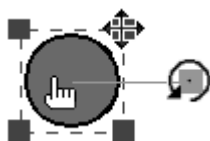
Use Mode, indicated by the hand button, is designed for ease-of-use while teaching a lesson.

Leave Easiteach in Use Mode if you are inviting students to **move** objects on the screen, because they will be able to move the object by clicking anywhere on it. Use Mode also provides access to resize and rotate objects, described below, but you may find **Edit Mode** offers more flexibility with these functions.

To **move** an object, press your finger or the pen down within the object and the hand icon will appear. You can drag the object anywhere across the screen.



To **resize** an object, hover over the outside edge until a double-ended arrow-head appears, then press down and drag until the object is resized to the desired size.



To **rotate** an object, press down on and the blue rotate arrows will appear. Hover over the rotation arrows, and when the rotation symbol appears press down and rotate the object.

Edit Mode



Edit Mode, indicated by the arrow button, allows a greater level of control for such tasks as cutting, copying and pasting, grouping objects together and adding effects.

To **move** an object in Edit Mode, press down on the object near the edge to select it, then hover near the edge of the object until the hand icon appears. Press down to drag the object across the screen.

To **resize** an object, press down on the object near the edge to select it, then press down on one of the red corner squares. A four way arrow will appear. Drag until the object is the desired size.

To **rotate** an object, press down on the object near the edge to select it, then press down on the rotation icon (a green line with a square) and drag to rotate it.

Zoom Tool






The magnifying glasses on the Easiteach toolbar allow you to zoom in and out of the screen to enlarge an area of particular interest when teaching.

Removing Objects




To remove any object from the screen simply drag it to the **Trash Can** in the bottom right hand corner of the screen.

Use the Undo and Redo  buttons to bring objects back from the trash can. You can undo and redo as many actions as you like from your current session.

You can also use the Cut  button to remove text or a picture from one screen, and perhaps Paste  it into another screen.

Screen Dimmer and Spotlight Tools

The **Fade Easiteach Screen**  button allows you to dim or fade a projected image when you are not using it during a lesson. This allows you to re-direct the focus of the students, and ensure they are not distracted by the contents of the screen.


Simply press the **Fade Easiteach Screen**  button to activate the screen dimmer.

If you wish the class to focus on a particular area of the screen, hover the pen over the screen to position or move the **Spotlight** around.



When you are ready to return to projecting the whole Easiteach screen, press down or click the mouse button.

Storyboard View

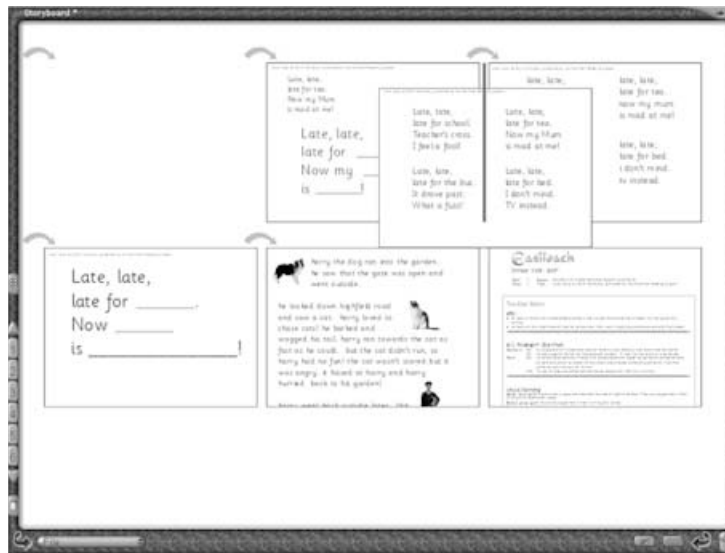
The **View** button  allows you to change to **Storyboard View**.

This allows you to view all the pages you have created at one time so that you have an overview of the entire Easibook. You can then modify pages or change the order.

Double-clicking on a page with your finger or the mouse will open that page to a full screen in the normal view.

Dragging a page to the Trash Can  deletes that page.


Dragging pages also enables you to reorder the pages in the Easibook:




Using Text

Using Text and the Onscreen Keyboard

You can add your own text to an Easibook by using the computer keyboard or the Easiteach onscreen keyboard. You can also drag words from the General Resource Bank.

In Edit Mode  press anywhere on the screen to place the red text caret ready to add text:



To use the onscreen keyboard press the keyboard button . Press keys on the onscreen keyboard to type onto the screen.




To type the next letter as a capital press the Shift key on the onscreen keyboard.

Dragging the corners of the selected text increases or decreases the font size.

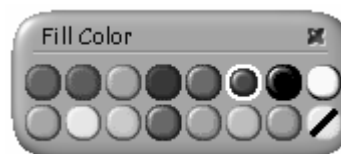
To increase the area of word wrap, hover over the red dotted line until the word wrap arrow appears and then drag outwards.




The edit tool  may also be used to 'Stripe select' some letters or words in order to edit these separately as shown below:

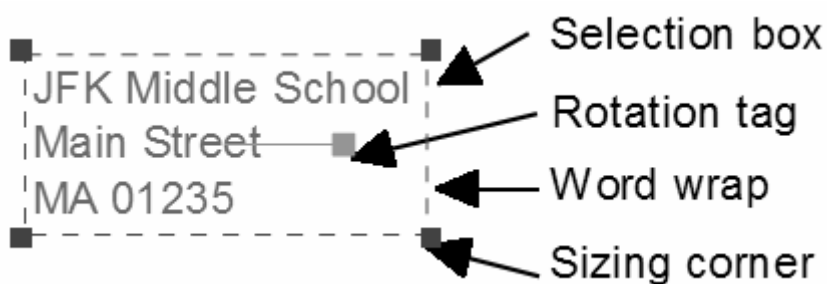





The **Fill Color** button opens a palette of colors to be used for text:



Editing Text

Once text is selected using Edit Mode  you can rotate it, change the word wrap, and change the font size using the edit options:




Once it is selected in either Edit or Use Mode it can also be Cut , Copied  and Pasted  using buttons on the Easiteach toolbar.

The  **Highlight** tool can be used as a highlighter pen or specifically to highlight text in various colors.



Import Text or Pictures From Other Applications

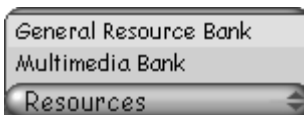
Easiteach allows you to use the copy functionality of other applications to copy text or pictures and paste them into Easiteach.

For example in Microsoft Word you can highlight the desired text, and use the copy option within Word to copy the text. Then within Easiteach you will find that the Paste button  is active and so you can paste the Word text straight into Easiteach. You can also use the keyboard shortcuts of CTRL+C to copy and CTRL + V to copy and paste. The copy and paste feature also works for images or text on web pages.

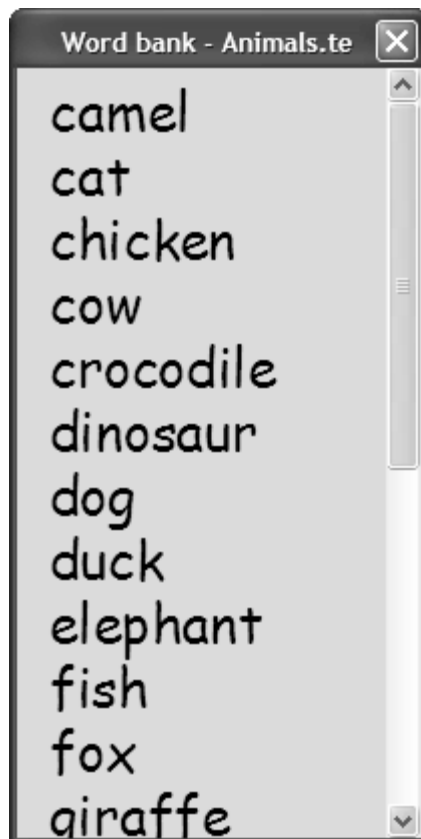
You may find **Glass Mode** the easiest way to swap between other applications and for copying and pasting content into Easiteach. Glass Mode is described later in this Guide.

The General Resource Bank


The General Resource Bank can be accessed via the Resources Toolbar.



The General Resource Bank gives you access to Word Banks. These are groups of commonly used words organized by categories (e.g. Animals) which can be dragged onto the Easiteach screen as individual items, for example to label pictures, or to form part of a sentence.



Using the 'Reveal' Technique

You can use a solid rectangle to hide text or a picture, then 'peel' this back to reveal the contents underneath. In Use mode  hover over one edge of the rectangle until a double-ended arrow appears. Then click and drag the edge, reducing the size of the rectangle and revealing the text or picture below.



The Speak Tool

The Speak Tool can be used to read text out loud.




The 'Speak Word' button says one word aloud.



The 'Speak Paragraph' button says a whole line or paragraph aloud.

See 'The Utilities Toolbar' section for information about changing the style of the voice.

Text Effects

The Effects button  allows you to change effects for the object you have selected. If you have text selected then the Text Effects window will be shown.

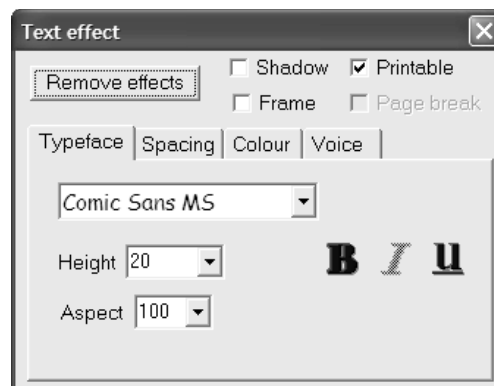
Text Effect — Effects will be applied to the text block unless individual words have been selected. From here you can add a shadow or frame to your text.

Typeface — change font type, height, aspect, and style.

Spacing — add bullets and indents.

Color — change the text color.











Voice — change the voice type, volume and speed for the selected text.



The Utilities Toolbar

The Utilities Toolbar provides access to further features. To access to Utilities Toolbar expand the Easiteach toolbar, if necessary, by clicking  and then click the **Utility** button .



-  Lock/Unlock to
-  Access Locked Items
-  Links
-  Create Text Frame
-  Link Text Frame
-  Speech Options
-  Record Sound
-  Background
-  Object
-  Style


Background


Lock to Background




Objects may be locked to the background, meaning the object cannot be selected or moved. To lock an object:



Select the object using Edit mode 

Click the **'Utilities'**  button on the Easiteach toolbar. To open the Utilities toolbar:

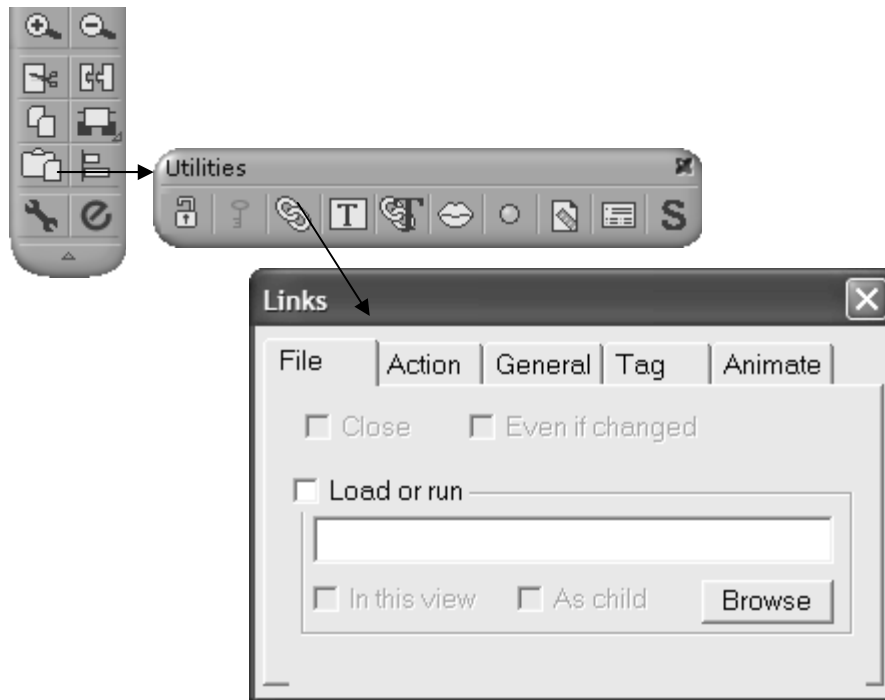
Click the **'Lock/Unlock to Background'**  button on the Utilities toolbar and the padlock will close  to indicate that the object is locked and now cannot be selected or moved.

The **'Lock/Unlock to Background'**  button locks down the selected object. An open padlock indicates the selected item is not locked, a closed padlock indicates the item will be locked.

The **'Access Locked Items'**  button is a toggle. When it is selected you can select and edit *all* locked items, before locking them away again by pressing the 'Access locked items' button again. If the 'Access locked items' button is grayed out , then there are no locked items to access and so the toggle feature is not activated. When the 'Access locked items' button is highlighted  then *all* locked items are currently accessed, so you are able to move them.

  The 'locked padlock' indicates that the selected item has had a lock placed on it AND the 'key' indicates that currently locked items are accessible. This means when the 'key' is pressed again this item will be locked. Click the 'padlock' if you want to permanently take the lock off this item.

The Links Window



The Links window can be used to add interactivity to an Easibook making lessons stimulating and exciting for students. The basic links include:

Link to a file: **File** tab, then **Load or Run** the filename.

Link to a web page. Type in the address, such as <http://www.rmeducation.com>, on the File tab and tick 'Load or Run'. Or copy the address from the browser address line and paste it into the File tab in the Easiteach Links window by right clicking and selecting paste

Close the Easibook: File tab, then tick **Close**.

Say a word or phrase: Action tab, then type the phrase and tick **Say**.

Links to another page of the Easibook: Tag tab, then **Go to Slide**.

The more advanced animation links are explored in more detail later in this course: Add animation, such as moving objects around the screen and 'Hide and Show'. Record a sound. See the 'Recording Sounds' section.

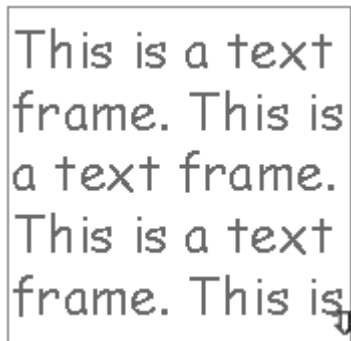
Text Frames and Linked Text Frames



Text frames allow you to keep text within a frame and Link Text Frames enables you to link frames together so the text flows from one frame to another, like in a newspaper.

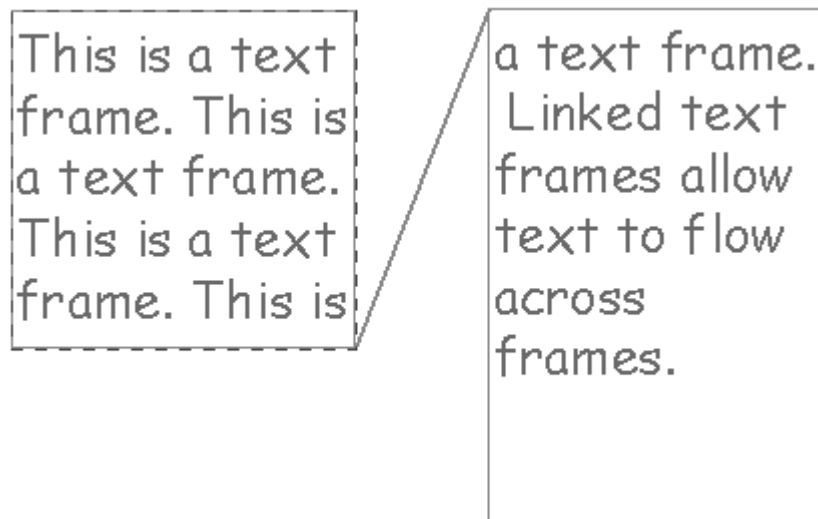
To add a Text Frame click Create Text Frame  on the Utilities toolbar.



A text frame can be locked to the background so it cannot be moved or resized. When a text box is full a red arrow appears so you can scroll to see the rest of the text.




The image below shows linked text frames. With one text frame created you can click the 'Link Text Frames' button  to create a second linked frame. Or you can select two individual text frames and link them together by clicking the 'Link Text Frames' button. The frames can be selected, resized and moved using Edit mode  and the text will link dynamically between the two (or more) frames.



Speech Options

If you wish to change the style of the voice for an Easibook, you can do this using the **Speech**

Options button  on the Utilities toolbar. You can download extra voices to appear in the drop-down box from the following URL: <http://www.bytecool.com/voices.htm>

Each engine is an .exe. To install, download the .exe to anywhere on your computer. Then double click it - it will install automatically to the correct location, and the new voices appear in the drop-down list in speech options next time you open Easiteach. You may find that other software applications you have installed on your computer will have added more voices.


Record Sound

There are 2 ways to record sound using a microphone and use it within in Easiteach.

- Record a sound and add a sound icon to the screen.
- Record a sound to play when text or a picture is clicked.

Record a sound to add a sound icon to the screen


Click the **Utilities** button  on the Easiteach toolbar.


On the **Utilities** toolbar click the '**Record sound**' button .

This adds a sound icon to the screen .

In the **Sound** window click the red record button  to begin recording using the microphone, and the stop button  to end recording.



The blue arrow  allows you to play back your recording.


The blue line  stops the playback or recording.


The vertical slider is used to monitor the volume of the sound as the recording is taking place. It will rise and fall throughout the recording as noise increases or decreases.

Record a sound to play when text or a picture is clicked

Select the object (text or a picture) you wish to make play the sound.

Click the **Utilities** button  on the Easiteach toolbar.

On the **Utilities** toolbar and then click the **Links** button .


Click on the **Action** tab, and then click the red recording button  next to the word **Sound**.

Sound Properties

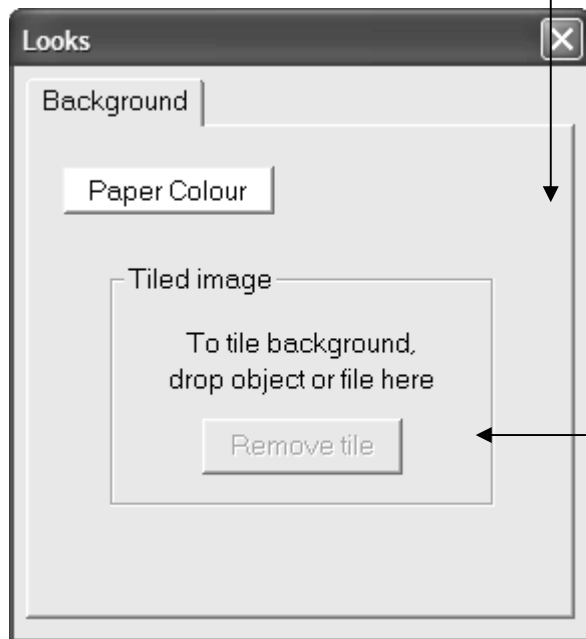
To change the properties of a sound icon, right click to select it, then open the Sound window either from the red button on the Utilities toolbar, or the Action tab from Links. Both display the same information.

Background

This feature enables you to set a color or a tiled image for the page background. Select the

Background button  on the Utilities toolbar to open the Looks window.


Click the **'Paper Color'** option and select a color to change the page background color.





Drag an image, text or set of grouped objects onto the **'Tiled image'** box to have that object tiled as background wallpaper. Note: drag and release the object at the edge of the Looks dialogue box (it won't actually drag into the dialogue box).

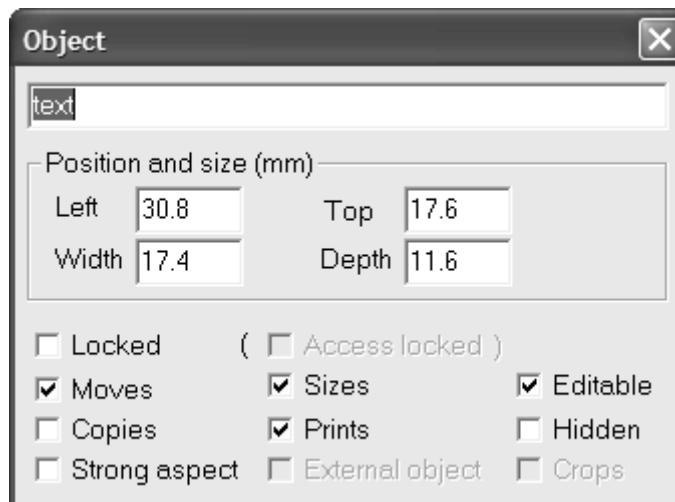
Object Window

The Object window allows fine control over the attributes and behavior of objects such as a piece of text, a picture, a line etc.

To view the attributes of an object, select the object using Edit mode .

Click the 'Utilities'  button on the Easiteach toolbar. To open the Utilities toolbar:


Click the Object button  and the Object window will be displayed. The image below shows the default settings for text:



The Object window specifies the type, or name, of the object selected. E.g. 'text' or 'tiger.png'. The position and size of the object are displayed in millimeters (mm).

Object Window Options

Locked means an object is locked to the background so it cannot be selected or moved, it is the same as clicking the 'Lock to Background' button .

(**Access locked**) means locked items can be selected. This is the same as clicking the 'Access Locked Items' button .

Moves means an object can be moved across the screen (this is the default setting).

Copies allows a copy of the object to be moved with the original staying in place. See 'Setting up Drag Copy'.

Strong aspect will maintain the aspect ratio of the object when it is sized. Some objects have this as default (e.g. clip-art) while others do not (e.g. rectangles). Holding down the CTRL button on the keyboard while resizing an object will reverse the default setting, either allowing you to retain or change the object's proportions.

Sizes means the object can be resized (this is the default setting).

Prints means the object will be visible in a printed output of the page (this is the default setting).

External object displays a picture from the original file, so the object is not saved in Easiteach in order to save disk space. This is the default for video clips. Be careful when moving the Easibook, or the external object file to another location on your hard drive or network as the page will look for the original file location of the external object.




Editable means the text or graphics can be edited. If this is not ticked then effects can still be applied, but text and lines cannot be edited.

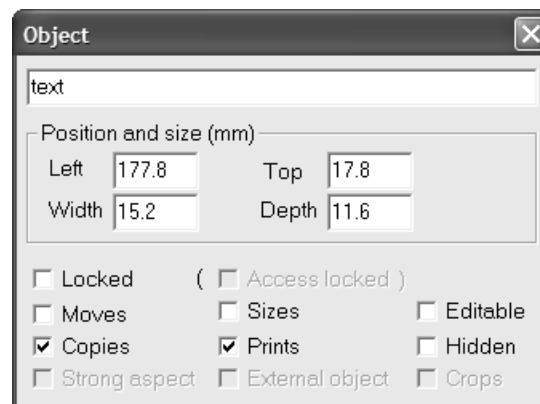
Hidden will hide an object from view.

Crops means the object can be cut down in size by dragging the edges inwards. This is the default for video clips and screen shots imported from Glass mode.

Setting up Drag Copy

This technique enables you to create many copies of an object on the screen by simply dragging the object elsewhere. It is extremely useful if you wish to create banks of objects within a page (e.g. a bank of numbers which students can drag to solve math problems).

Select the object using Edit mode . Click the 'Utilities'  button on the Easiteach toolbar. To open the Utilities toolbar, click the Object button  to see the properties of the object selected. Ensure that just 'Copies' and 'Prints' are ticked. As shown below:



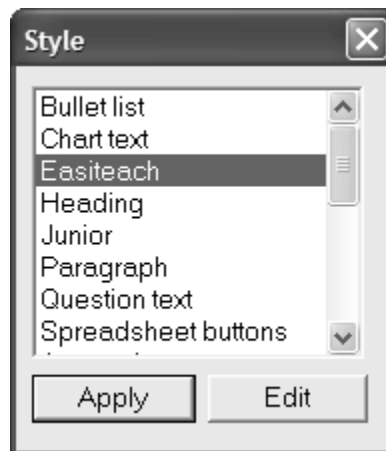
Close the 'Object' window and the 'Utilities' toolbar.

Style

Styles are a quick way to set up the size, type and features of text and shapes with one mouse click; for example, all 'Heading' text can be set to the same font type and size.

The Style option is available from the Utilities toolbar.

Clicking the Style button  on the Utilities toolbar opens the Style window:




To apply a style to an object, select the object, then select a style from the Style window and click 'Apply'.


The 'Edit' button allows you to change a style. Once a style has been edited all objects in the Easibook with the style are updated. For example, editing the 'Heading' style to Arial 16 bold will change all text in the Easibook with the style 'Heading' to Arial 16 bold.

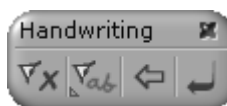
Handwriting Recognition

The Handwriting tool allows you to write using freehand text within an Easiteach document (or other application if you are using Glass Mode) and have the writing automatically recognized and displayed as text.


How to use Handwriting Recognition



Using Edit Mode  place the text caret on the screen where you wish your text to be located.

Click the Handwriting Recognition button  on the frame at the bottom of the screen. The Handwriting Recognition toolbar will be displayed, and the Easiteach menus and toolbar will be hidden.

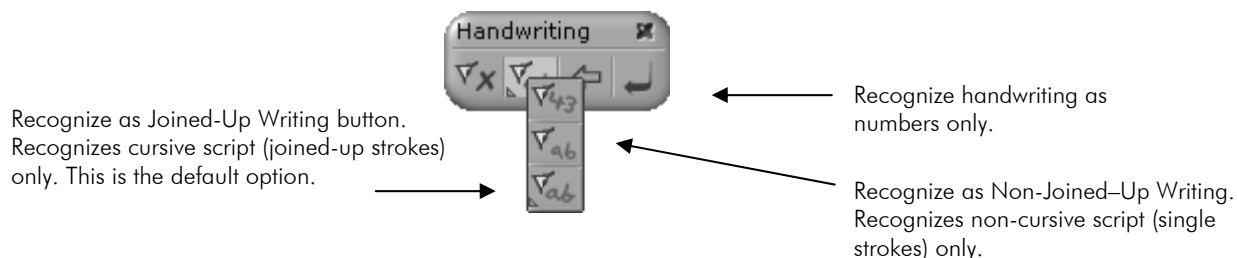


Write some words on the screen. The words will be recognized automatically and converted to text.

If you need to edit the text, use the Backspace button  to delete one character at a time. The Enter button  moves the text caret to the next line to begin a new line of text.

To end handwriting recognition and return to the normal Easiteach screen click the 'Exit from Handwriting Recognition' button  or the red cross on the top right of the Handwriting toolbar .

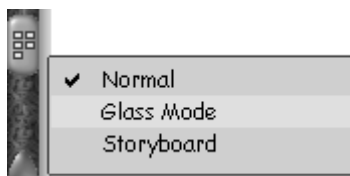
Recognition Options



Using Glass Mode to Interact with Other Applications

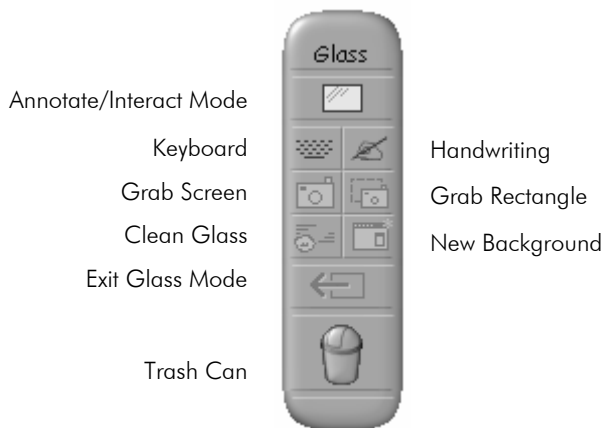
Glass Mode allows you to capture screens from other applications and annotate them using the Easiteach tools. Glass mode also enables you to insert 'captured' screens as a page within an Easibook.

To access Glass Mode press the **View** button  and select **Glass Mode**.




The Easiteach screen disappears to reveal the Glass Mode toolbar and the desktop or application that was running behind Easiteach.

The Glass Mode Toolbar




Clicking the Annotate/Interact Mode button  'toggles' you between interacting with the computer (**Interact Mode**) and annotating over a background image (**Annotate Mode**).

Interact Mode


In Interact Mode  you can use your finger or a whiteboard pen to operate applications as you would with a mouse on a computer. For example, use your finger in Interact Mode to open an application, such as Microsoft PowerPoint.



You can use the **Keyboard** button  on the Glass Mode toolbar to open the Easiteach onscreen keyboard and type into any application, for example Microsoft Word.


The **Handwriting** button  on the Glass Mode toolbar also allows you to insert text into any application.


When you have a slide that you wish to draw over, press the  button to go into Annotate Mode.


Annotate Mode


In **Annotate Mode**  the Easiteach toolbar appears to enable you to draw or write over the top of a screen, as if writing on a sheet of glass. You can draw shapes, add animation etc, in fact you can overlay many Easiteach features.

In addition to the Easiteach toolbar, you can add text annotations to the screen by opening the Easiteach Onscreen keyboard from the **Keyboard** button , or add text annotations using the **Handwriting** button , which can both be found on the Glass Mode toolbar.

The **Clean Glass** button  cleans all annotation off the Glass Mode screen.


The **New Background** button  refreshes the screenshot you are annotating. For example, when annotating over the top of the desktop, you will notice that the time display in the bottom right hand corner does not progress. This is because you have effectively taken a snapshot of the desktop. Clicking the New Background button takes a new snapshot of the desktop and the time display will change to reflect the new snapshot.


Drag any annotation such as shapes, lines or text to the **Trash Can**  to remove them from the Glass Mode screen.

When you wish to interact with the computer again, for example to move on to the next PowerPoint slide, press the **Annotate/Interact Mode** button  to go back to Interact Mode.

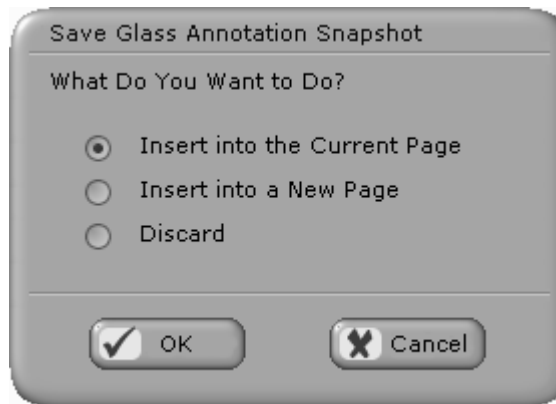
Using Glass Mode for Screen Capture

Screen Grabs

Use the **Grab Screen** button  to copy a screenshot and insert it into Easiteach. You may need to scroll to see the whole screenshot.

Use the **Grab Rectangle** button  to select a rectangular area as a screenshot to insert into Easiteach. The image appears in the corresponding position on the Easiteach screen.

Alternatively when you have finished your annotations, you can insert the whole screen including your annotations into Easiteach by clicking the **Exit Glass Mode** button .



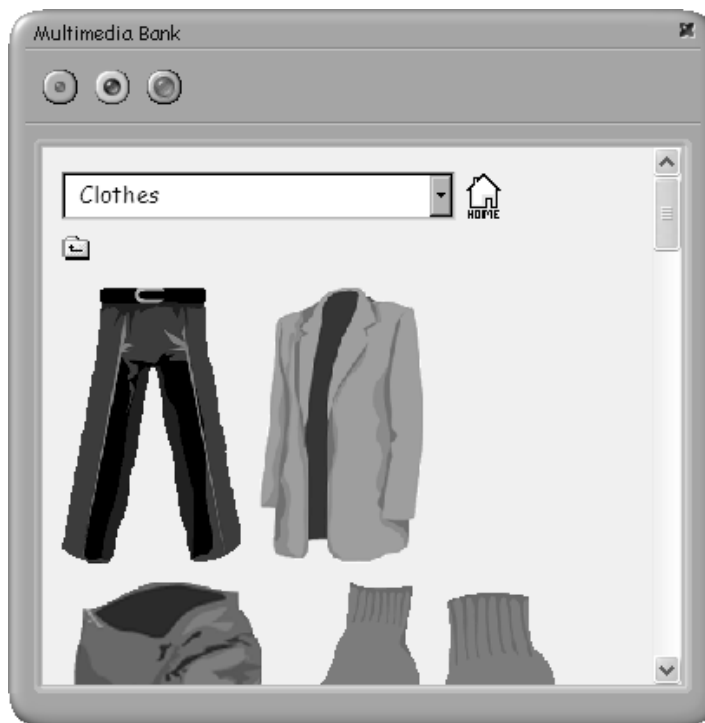
Insert into the Current Page will paste the screen grab into the Easiteach page you were using when you went into Glass Mode. The image may appear behind objects already on the Easiteach page.

Insert into a New Page adds a new page into your Easibook, directly after the page you were using.

Discard returns you to Easiteach and any annotations are lost.

Using Multimedia


The Multimedia Bank




The **Multimedia Bank**, accessed from the Resources Menu, allows you to add a variety of media to the Easiteach page:

- Pictures
- Sounds
- Video clips
- Flash objects

Use the Multimedia Bank to navigate to media you have stored on your computer or network. Media can be dragged onto the Easiteach screen and resized or rotated.

The Home button  will return you to the list of template multimedia resources installed with Easiteach Studio which are organized in various categories (e.g. clothes).

The buttons at the top of the Multimedia Bank window  allow you to quickly select whether the image will be Small, Medium or Large, when dragged onto the screen.

Pictures

Easiteach Studio comes with a large selection of line art pictures (Windows Meta Files .WMF) which resize very effectively with no loss of quality. You can also add your own pictures to an Easibook from other sources, such as a digital camera or the Internet. Just save the pictures and navigate to the location from within the Multimedia Bank. You can also import multimedia objects using the File and then Open command. Browse from here to your multimedia resources, remembering to change Files of Type to All (*.*). Easiteach will recognize the following picture formats:

- Internet images such as .JPEG, .GIF and .PNG
- Clipart formats such as Windows Meta Files (.WMF)
- Bitmaps (.BMP)
- .TIFF images, popular with graphic designers
- Mac Pict files

Hint: Double click a picture in the Multimedia Bank to view it at full-screen size. Click anywhere to return to normal view.

How to use a picture from an Internet page in Easiteach

Right click on the picture on the web page that you wish to use.

Select 'Save Picture as'.

Use the 'Save In' dialogue box to the picture to a location where you will be able to access it in the future. You might like create a new folder where all your Easiteach pictures will be stored.

To import one of your pictures into Easiteach, click the **Resources** button and then select **Multimedia Bank**. Navigate to where you saved the picture.

Drag the picture onto the screen.

Note: Many internet images are protected by copyright. Please ensure that you are not breaking copyright laws when downloading and saving images.

Cut, Copy and Paste

Pictures can be Cut , Copied  and Pasted  using tools on the Easiteach toolbar.

Note: Selecting an object, then holding down the CTRL button on the keyboard and dragging also copies it.

Editing and Positioning Pictures

Once pictures are selected, they can be rotated, moved or resized in a similar way to text.


When resizing or creating shapes hold down the CTRL key if you wish the shape to retain its aspect ratio.

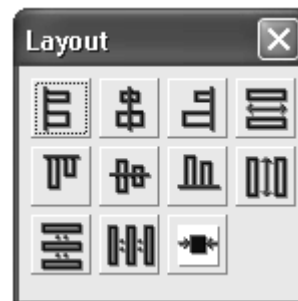
To flip an image, drag the sizing corner over to the other side of the image.

Aligning Text and Pictures

When two or more objects (text and/or pictures) are selected, they can be aligned using the 'Layout' window.

First select the object, to which other objects are to be aligned, with the left mouse button, then select the other objects to be aligned with the right mouse button. You can also use the CTRL key for multiple selections.

Click the 'Align' button  on the Easiteach toolbar. Select the type of alignment from the 'Layout' window. Objects are aligned based on the first object selected.



Note: If you apply more than one alignment without reselecting the objects, the top left-hand object is used as the base of the change for the 2nd and subsequent alignments.

Alignment Options



Aligns all selected objects to the left hand edge of the first selected object.



Aligns all selected objects to the vertical centre of the first selected object.



Aligns all selected objects to the right hand edge of the first selected object.



Changes the width of all selected objects to match the width of the first selected object.



Aligns all selected objects to the top point of the first selected object.



Aligns all selected objects to the horizontal centre of the first selected object.



Aligns all selected objects to the bottom most point of the first selected object.



Changes the height of all selected objects to match the height of the first selected object.



Places all selected objects with equal gaps apart vertically.



Places all selected objects with equal gaps apart horizontally.





Places all selected objects in the centre of the screen horizontally. Use this to centre a title on the page.

Flash Objects

Flash files display vector-based graphical animations and sound with interactivity over the Internet. Several applications can create Flash files including the Flash authoring tool from Macromedia. Easiteach installs 4 Flash files that can be used within Easiteach. The four Flash files, which are accessible through the Multimedia Bank in the **Flash Activities** folder, are as follows:

- Clock
- Grapher
- Gravity
- Pool

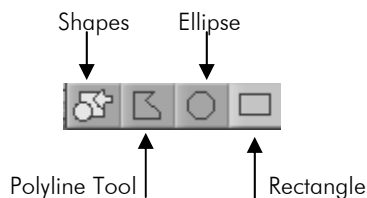
Use Edit Mode  to resize the Flash object. Change the pointer to Use Mode by clicking the Use Mode button  on the Easiteach toolbar to interact with the Flash object.

Flash Files

Easiteach Studio will recognize Flash files with the file extension of .SWF (Shockwave Flash).

Shapes



The **Shape** button on the Easiteach toolbar allows you to draw your own or add predefined shapes to your Easibook. There are 4 tools accessible from one button, and the Easiteach toolbar will display the last drawing tool used:




Clicking the **Shape** button displays a window of predefined shapes. Simply select the shape you wish to use and drag it onto the screen.


To create an **ellipse** or **rectangle**, click on the appropriate button. The pointer will change to a cross. Click once on the work areas to locate the starting point for the shape, then drag the pointer to size the shape and click again to finish.

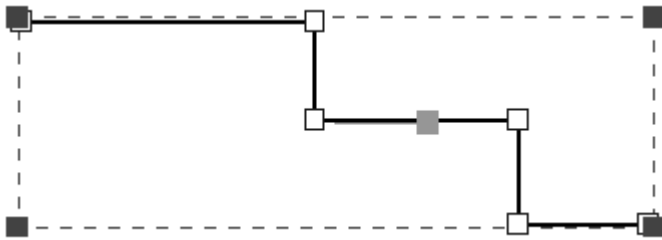


Note: To create (or resize) a perfectly proportioned square or circle using the Rectangle  or Ellipse  tool, just hold down the CTRL button on the keyboard as you drag on the screen.

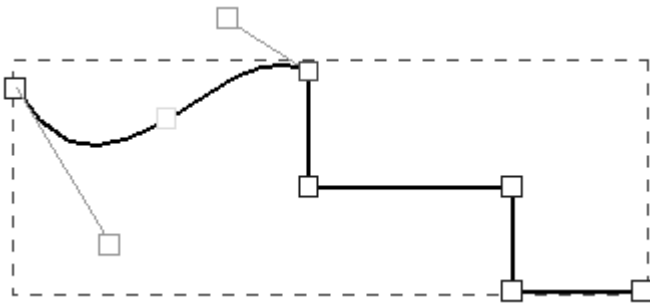
Using the Polyline Tool to create your own shapes and curves

To create your own unique shape, draw out the lines using the Polyline tool . If you have a fill color selected, the final point of the shape will automatically join to the first point of the shape. To finish without joining the ends together, make sure the fill color is set to none and press return on the keyboard or double click.


When you have drawn your line image, the polygon can be repositioned and curves can be created by selecting it using Edit mode .




To create a curve click on a blue square to reveal 2 green squares on either side of a grey square. Dragging one of the green squares will make the line curve.




The grey square allows you to bend the line, effectively inserting another new point.

For some drawing tasks, you may find the freehand drawing tool more effective .

Grouping Objects





Several pieces of text and/or images can be grouped together using the Group button . This makes it simple to re-size or rotate several objects simultaneously. To select more than one object when using Easiteach on a computer, click one object, then right click subsequent objects. You can also use the CTRL key to make multiple selections. Click the **Group** button to make a Group, and click the Group button again to **Ungroup** the objects. There is no limit to the number of objects that can be grouped. Also, grouped objects may be grouped together.

Nesting Objects

If you drag one shape into another it becomes nested, which means that moving the larger shape with the Use Mode  tool moves the smaller shape within it.



When would you use nesting rather than grouping?


Use nesting in Use mode  when you want students to move objects around the screen. For example you might want students to move all objects with 3 sides into one box, and objects with more sides into another. Use grouping when you want to copy or resize objects together. Grouped objects can be copied and resized together, whereas nested objects operate individually. For nesting to work, objects must be on top of another object, whereas you can group objects together even if they are not touching. Nesting only occurs using the Use  tool, whereas grouping works with both Use  and Edit mode .

Move Forward and Move Backward

When objects overlap, it is possible to use the 'Move forward; move backward' buttons  to determine which are at the front.


Animation

Animation can easily be added to an Easibook using the Links option from the Utilities toolbar. Using animation, it is possible to make any image or text follow a line, shape, polygon or free-hand line.

First, select the object you wish to move. You can select it by either left or right mouse clicking on it using Edit mode .

Next, select the line or shape you wish the object to follow. Select this by right clicking on it. This should result in you having 2 objects selected.

Use the Move Forward/Move Backwards tool if you need to move the object in front of the line.

Click the Utilities button  on the Easiteach toolbar to open the Utilities toolbar.



On the Utilities toolbar click the Links button .

In the Links window tick **Follow over** on the Animate tab and the object selected first will follow the line/shape selected second.

Note: The object you wish to animate does not need to be on the line it will be following, as it will jump onto the animation path when the animation starts.

Changing Animation Settings

While you have the objects selected in this way, open the Links window on the Animate tab to change the animate settings.

If the object is already moving you can press **F6** on the keyboard or left mouse click on the object to stop it. To change the animation properties, right click the object that was moving then open the Links button  from Utilities  and go to the Animate tab.

To change the Follow over time, type the time in seconds and press return to implement the change. Left mouse clicking on the object starts it moving again.

Hide and Show

There are 3 options on the Animate tab of the Links window that allow you to hide and show objects in different ways.

- **Hide when over** means that the object will disappear when the pointer hovers over it.
- **Show when over** means that the object will appear when the pointer hovers over it.
- **Hide/show on click** allows you to toggle between viewing and hiding an object by clicking on it. If you type a time in the **seconds** dialogue box, the object will reappear or disappear after the time set.

Tip: Hide and show can be used very effectively to create memory or matching pairs games.

Sounds

Playing Sounds


There are several ways in Easiteach you can use sounds to enhance your teaching. You can record your own sounds, as described in **Record Sound** above, or use those provided with Easiteach to:

- Add a sound icon to the screen.
- Link text or a picture to play a pre-recorded sound when clicked.
- Record a sound to add a sound icon to the screen, or to play when text or a picture is clicked.

How to add a sound icon to the screen

Using the **Multimedia Bank** navigate to the sound you wish to play. Easiteach will recognize audio .WAV files and Midi .MID files.

Easiteach supplies some sounds which can be found in the **Sounds** folder in the Multimedia Bank.


Easiteach provides sound files (.WAV files) for the phonetic pronunciation of the letters of the alphabet. From the Multimedia Bank home page, click the up arrow  then click Language, then English, then Sounds. If you are browsing to this location on your hard drive, the Sounds folder is located at: C:\Program Files\Research Machines\Easiteach\Language\English\Sounds

Drag your selected sound onto the Easiteach screen. This will add a sound icon to the screen .

Note: to select a sound without it playing, right click on the icon.

How to link text or a picture to play a pre-recorded sound when clicked


Use the **Multimedia Bank** to navigate to the sound you wish the object to play.

Drag your selected sound so that a sound icon  is displayed on screen.

Select the object (text or a picture) you wish to associate with the sound. This is the object that when clicked will launch the sound file.

Use the **right mouse button** to click on the sound icon just added.

Click the **Utilities** button  on the Easiteach toolbar.

On the **Utilities** toolbar click the **Links** button .

Click on the **Action** tab and tick **Sound**. The sound icon will disappear. The sound is now associated with the object and when you click on it, it will play the sound.

To unlink the object from the sound

Right click the object, to select it without playing its linked sound. Once you have the object selected you can open the Links window from the Utilities toolbar and uncheck 'Sounds' if you no longer want the object to play the sound. This will separate your object from the sound and you will see the sound icon reappear on the screen.

Video

Easiteach allows you to run video clips on the Easiteach screen.

Navigate to your video files through the Multimedia Bank. Easiteach will recognize the following video formats:

- .WMV (Windows Media Video)
- .MPEG (Moving Pictures Experts Group)
- .AVI (Audio-Visual Interleave)

When you have located a video clip, you can drag it from the Multimedia Bank onto the screen. Once on the Easiteach screen the video clip can be resized as required and played.

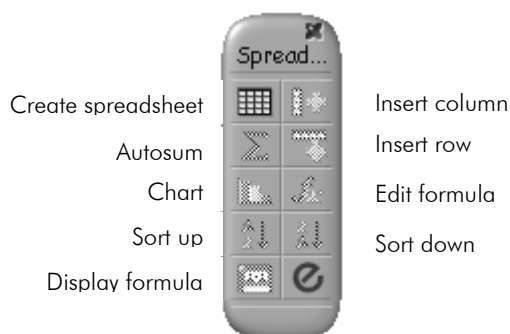


Be careful when moving the Easibook or video file to another location on your hard drive or network. Videos are not saved in Easiteach in order to save disk space, so Easiteach refers back to the original file. If the original file has been moved, the video clip will not launch.

Spreadsheets


The **Spreadsheet Toolbar** can be launched from the main Toolbars menu. From here, you can quickly and easily create and display spreadsheets and graphs. The advantage of using the Easiteach spreadsheet software is that it is very easy to use and is integrated with the other Easiteach tools.

The Spreadsheet Toolbar



Creating a spreadsheet

To create a spreadsheet simply click the 'Create Spreadsheet' button , click on the screen and drag out to create the rows and columns required.

Columns and rows can be added by clicking the 'Insert Column' button , and deleted by highlighting them and pressing the Delete button on the keyboard.

Selecting Cells and Text

Whole cells turn gray when selected, but text can also be 'stripe' selected and edited.

Cells can be colored using the **Cell** tab in the **Effects** window.

Ranges of cells can be selected by dragging across the spreadsheet.

Rows and columns can be selected by clicking the row or column header. To select a row or column that is not adjacent to the first selection, press the shift key on the keyboard when clicking on the second row or column.

Sorting

Data can be sorted in ascending or descending order using the **Sort up** and **Sort down** buttons.

Autosum

Autosum will sum together all of the values in selected cells.

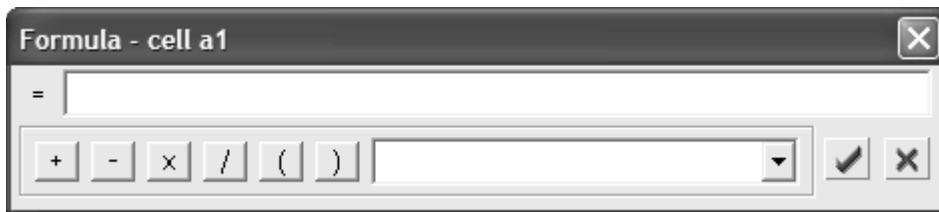
Select a range of cells containing figures that are to be included in the sum, then click on the Autosum button on the Spreadsheet Toolbar. The sum of the values will be placed in the cell directly beneath a *column* of figures, and directly to the right of a row of figures.

Click in the cell in which the total figure is given, and the equation of the sum is shown. The equation reads sum(range), where range will be indicated by the participating cells.

This feature is exceptionally useful for totaling rows and columns of data quickly and easily.

Using Formulas

Inserting a formula (mean, min, max, if)



'IF statements' – It may be useful to see which pupil is the oldest, youngest, tallest or shortest, and for this to be updated automatically as the information is updated. These types of calculations known as 'conditional tests' may be performed using IF statements: If the following condition is true display 'this', otherwise display 'that'.

Replicating the formula to apply to another series of data

You may apply the same formula to a column of different data, without writing the formula over again. First select the cell with the formula. Place the pointer over the white box that appears in the bottom right hand corner of the selected cell. The pointer will change to a black cross. Click and hold down and drag to an adjacent cell. If you wish values to remain constant while replicating, a \$ sign must be placed directly in front of the letter and the number of the cell reference, e.g. \$a\$1 will fix both the "a" and the "1".


The 'Say' function

Easiteach Spreadsheet is unique in having a **Say** 'function' that can be used in formulas. This allows you to set up a spreadsheet so that if a student inputs the correct answer into a specified cell, the words of your choice are spoken out loud and appear in another cell.

Inserting pictures

Clipart may be inserted into a spreadsheet cell. Each cell can contain just a single item, and that may be either a picture or some text.

Creating a Chart

To create a chart simply select the cells you wish to be charted then click the Chart button  on the Spreadsheet toolbar.

You can create a pie, bar, line or scatter graph. Adding a Grid to the graph may help students calculate values.

To move the spreadsheet, select the whole spreadsheet by clicking once in the top left hand corner. The cursor will change to the hand, and the spreadsheet may be moved anywhere on the page.

To move a chart, click on a blank area and the cursor will change to a hand and the chart can be moved.

Databases

The Database Toolbar allows you to show database fields, tables, and charts within an Easibook.



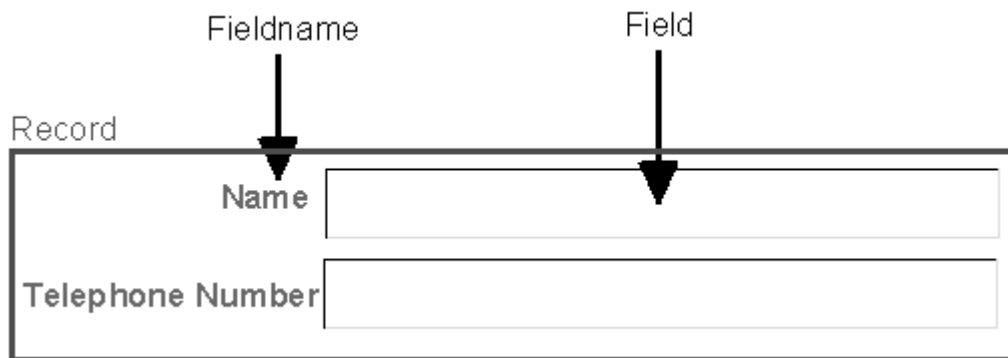
A database is created by adding fields to the Easiteach screen. Once all the desired fields have been created, use the **Properties** option to ensure that only correctly formatted data can be entered.

Enter the data into the form and use the navigation buttons on the Database toolbar to scroll through the database records. The change data view allows you to see the data in a table or report. A subset of the data can be selected using a Query from the **Select Records** button.

A **Chart** can be produced from the whole set of data or a query. You can create the chart from either the field or the table view and it can then be copied to a new Easibook page.

What is a database?

A database is an organized collection of information. The information is stored in named fields that are grouped together in records. An index card system is like a *paper* database, where all the information about an individual is stored on one card. In a database, this index card is called a record. A database is usually made up of several records. The record generally have fieldnames which may be categories such as 'Name', 'Telephone number' etc.. The values for these are in the fields themselves.




A **form** is a page that contains fields and can have data entered into it. A **data field** (often referred to as simply a field) is defined as one of the pieces of data that make up a record, for example the name of the person. A **record** is defined as one complete set of fields in a database. A **report** is a view of data in the database that displays many records at once.


Creating a database in Easiteach Studio

- Add Fields
- Set Properties
- Enter Data

Add Fields

When creating a database in Easiteach, the first thing to do is to create the data input form by selecting the **Add field** button  and clicking on the screen to insert the field and fieldname. Once all the fields are in place, you can edit the fieldnames, move and resize the fields.

Set Properties

The next step is to apply Properties to the fields to control the data that is going to be entered. Click the **Properties** button  to open the properties sheet and select the **Field** for which you wish to set properties.

The Field Type drop down list has the following options:

Any	Any kind of data can be input.
Text	Only text such as words and letters may be entered.
Integer	Only whole numbers may be entered, 1, 2, 6, 88 and so on.
Decimal	Decimal numbers are allowed, such as 1.5
Date	Please note that at the present time, dates may only be entered in one of the following UK date formats (dd/mm/yy): 12 th February 2003 12/02/03 12-02-03
Boolean	A tick box is created, that can either be ticked or not ticked.
Picture/ Movie/ Sound	Only data in the selected format may be entered.
Autonumber	The fields will be numbered automatically. This can be useful to create individual record numbers increasing from 1, 2, 3 upwards.

Valid Range

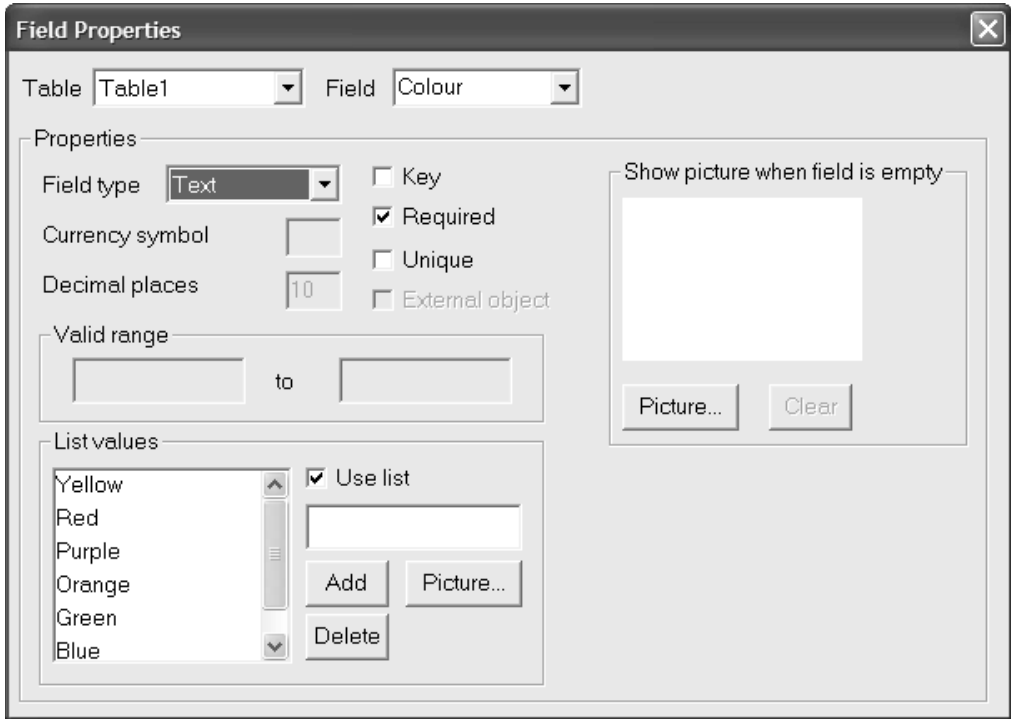
When using Integer, Decimal or Currency, the Valid Range boxes may be used to ensure the data added is between two numerical ranges. For example you could say Integer, between 1 and 5, so if someone tried to type 7 it would not add this value.

Use List

It can be very useful to offer, and force a selection from, a list of options as shown below:



To set this up, tick **Use List** as shown below, then type a value into the text box below and click **Add**. Continue typing values and clicking Add until you have completed your list.







Enter Data

Click into the first field entry area and type the information you wish to enter. Continue until the record is complete. Click the **New** record button  to go to a clean form to allow you to enter data for the next record. To remove a record press the **Delete** Record button .

Note: You can also drag pictures into fields. To do this, make sure you drag the field to a suitable size before putting the pictures in.

Navigating Through Records

You can navigate through the records of the database using the First record , Last record , Previous record  and Next record  buttons.

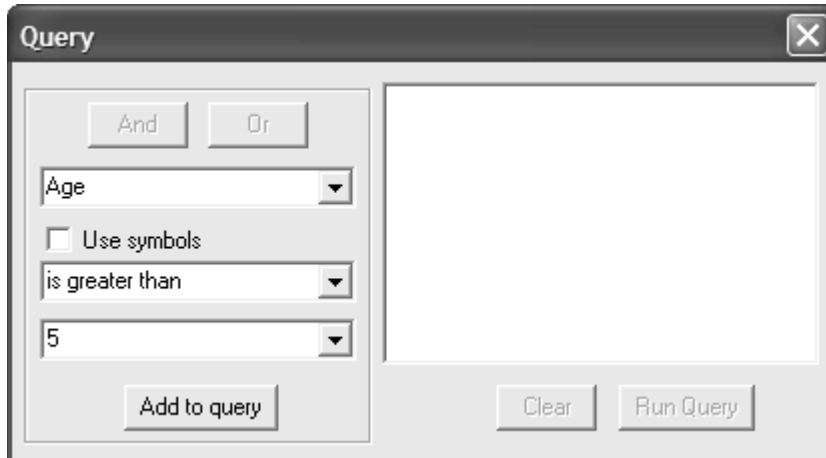
Running a Query to Select a Subset of Records

Use the Select records button  to query the data, or select a subset of records.

Click the **Select records** button and then use the drop down lists to build up the query. The example below will return all records where Age is greater than 5.


Click **Add to query** and the query will be created on the right hand side.

Click **Run Query** and the records meeting the criteria will be selected and displayed.



Note: You can use the And & Or buttons to build up a more complex query on the right hand side. For example, Age > 5 AND Age < 13.

Creating a report

Change **Data View**  produces a report where many records can be viewed at once in a table format. This is useful for viewing the results of a query after using the Query method described above.


You can delete and re-order the columns in the report.

To return to the form view, simply click the Change Data View button again.

To sort the data alphabetically, select a column and then click either Sort up or Sort down buttons




Creating a Chart

Drag select the field entry boxes on the form that you wish to chart, then click the **Chart** button .

You then get a choice of Pie Chart, Bar Chart, Line Chart or Scatter graph. Ticking **Grid** will place a grid behind the chart so the values can be read off more easily.

Note: A Scatter Graph requires at least 2 numerical series, for example, height and weight, so they can be plotted against each other.

Table map  – This displays information about a database and its structure. Use the Table map to change the names of tables and fields, or to create new forms and reports.