

Tutorial Two: Using steps to show progression of work

The Step Workspace allows pupils to show and explain each step as they progress through a maths project. Because their work is preserved and duplicated as they move from one step to the next, you can see what their thinking process was and pinpoint any mistakes.

Pupils can use any one of the five Kidspiration® Maths Tools with steps, but can only use one tool per project. In this lesson, you will learn to create a new project in the Step Workspace using the Kidspiration Colour Tiles™ Maths Tool. For specific information on how to use all five of the Maths Tools, refer to Tutorial One.

Starting Kidspiration

To start Kidspiration on a Macintosh:

- Open the **Kidspiration 3 IE** folder and double-click the **Kidspiration 3 IE** icon.



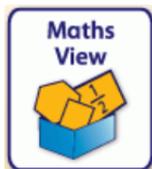
The Kidspiration Starter opens.

To start Kidspiration in Windows:

- Click the **Start** button, point to **Programs** and click **Kidspiration 3 IE**.

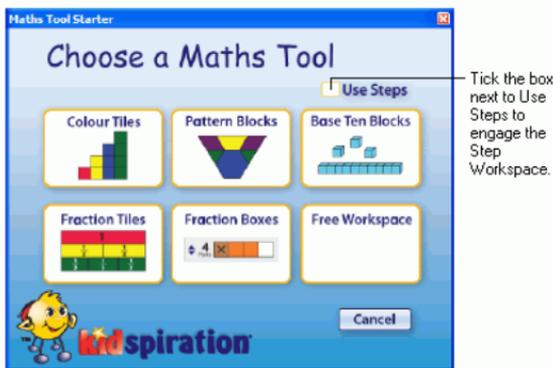
The Kidspiration Starter opens.

The Kidspiration Starter is the place where you start new projects, open existing projects and use the many different Kidspiration activities. You will begin by clicking the **Maths View** button to open the Maths Tool Starter.



Starting a new Kidspiration Colour Tiles project using steps

To start a new Kidspiration Colour Tiles project using steps, place a tick in the box next to **Use Steps** in the **Maths Tool Starter** and then click the **Colour Tiles** button.



A new step workspace opens in the Kidspiration Colour Tiles Maths Tool, with Step 1 active and ready for you to begin your project. As you proceed, you may add as many steps as you like, but only two will be showing on the screen at any given time. The active step has a white background and the inactive steps are grey.

Adding your name to a project



1. On the **Maths** toolbar, click the **Pupil Name** button
2. Type your name in the box where indicated.

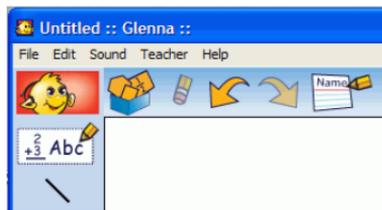
For the examples in this tutorial we will use the name “Glenna.”

3. To choose where you want the name to appear on the page, select **Left**, **Centre** or **Right**.

A preview of how the name will appear on the page is displayed in the box on the right side of the dialogue box.

4. Click **OK**.

The pupil name appears in the title bar of the document.



Saving your work

1. On the **File** menu, click **Save**.
2. In the folder list, click the folder where you want to save the project.
3. Type a name for the project, and then click **Save**.

Kidspiration suggests the name “Glenna” based on the pupil name, but you can use a different name.

Setting up your project

Adding a Maths Text Box

Maths Text Boxes allow pupils to describe their work with words, numbers and maths notation, including structured frames for writing fractions, division problems and vertical maths notations. Maths Text Boxes also allow teachers to place instructions and helpful text in projects.

1. Click the **Maths Text Box**  in the **Maths palette** and drag it into Step 1, positioning it at the top and centre of the workspace.
2. Type **Show and explain your work for every step!** into the Maths Text Box.
3. Click outside the box and then back on it to select it. When a text box is selected, it has corner handles .
4. Click and drag on the corner handles to resize the box so that all of the text fits on one line at the top and centre of the workspace.
5. Drag another text box out and place it below the first one.
6. Type the following problem into the text box:

Andrew, Claire and Matt split 12 sweets equally. Matt gave 2 sweets to Claire and then Claire gave half of her sweets to Andrew. How many sweets do they have now?

7. Decrease the text size by clicking the **Resize Text** button  on the **Bottom** toolbar twice.
8. Click outside the box and then back on it to resize the text box so that the text fits on two lines, positioned below the first text box.

Note: If you make a mistake in your work, you have several options on the Maths toolbar:

- You can delete an item by selecting it and clicking the **Clear** button  on the **Maths** toolbar.

–or–

- You can undo up to the last eight changes in your project by clicking the **Undo** button  on the **Maths** toolbar.

–or–

- You can redo up to the last eight changes you used the **Undo** button to undo by clicking the **Redo** button  on the **Maths** toolbar.

Adding a Maths SuperGrouper™ to your project

Maths SuperGroupers are similar to the SuperGrouper®'s in Kidspiration's Picture View. They are used for grouping, sorting, categorising and counting activities.

1. Click and drag a rectangular **Maths SuperGrouper** from the **Maths palette** onto the blank workspace.
2. Click on one of its handles to resize it so that it fits below the text boxes and on the left side of the workspace, and takes up about 1/4 of the workspace from left to right.

Duplicating items on the workspace

You will use a Maths SuperGrouper to represent each person in this word problem. Because you want three Maths SuperGroupers which are about the same size and shape, you can use Copy and Paste options to create two more of them on the workspace.

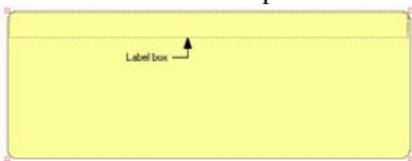
1. Select **Copy** from the **Edit** menu and then click on an area of open workspace to the right of the first grouper.
2. Click **Paste** on the **Edit** menu. Move your cursor to another area of open workspace and click **Paste** again.
3. Position the groupers in a row from left to right across the page.

- Now add another text box to the right of the groupers and resize it so it is square and takes up the remaining space on the right side of the workspace. Click the **Border** button  on the Bottom toolbar to give it a border.

You will add information to this text box later.

Labelling Maths SuperGroupers

- Notice that when you have a grouper selected, a label box appears in dotted lines at the top.



- Double-click inside the first grouper's label box to select it and a cursor will appear.
- Type **Andrew**, and then select the label in second grouper and type **Claire**. Type **Matt** into the third one.

Your project should look something like this:

1 Show and explain your work for every step!

Andrew, Claire and Matt split 12 sweets equally. Matt gave 2 sweets to Claire and then Claire gave half of her sweets to Andrew. How many sweets do they have now?

Andrew	Claire	Matt	
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Locking items on the workspace

Now that Step 1 is set up, you can lock its contents so that they cannot be moved or deleted.

- First you'll need to multi-select the three Maths SuperGroupers by holding down the **Shift** key and clicking each of them.

Tip: You can also turn Shift-select on, which allows you to select multiple items on the workspace without holding down the Shift key. Click the **Shift-select** button on the **Bottom** toolbar to turn Shift-select on or off. The Shift-select button appears on Maths View's Bottom toolbar when **Stylus Mode** is turned on in **Application Options** on the **Teacher** menu.

Note: The Teacher menu must be enabled in order to access *Application Options*. To turn the Teacher menu on or off, click **Enable Teacher Menu** on the **Teacher** menu. You can create a password for the Teacher menu to prevent pupils from using it and changing teacher preferences.

- On the **Teacher** menu, click **Application Options**.
- Place a tick in the box next to **Password Enabled**.
- Click **Set Password**.

The Set Password dialogue box appears.

- Type the password you want to use in the **Enter Password** box.
- Type the password again in the **Confirm Password** box, and then click **OK**.
- When you enable the Teacher menu, you will be prompted to enter your password.

Note: If you forget your password, you can access the Teacher menu by using the password “Kidspiration3.”

2. With the groupers selected, click **Locked Item** on the **Teacher** menu.

A tick appears next to *Locked Item* when the groupers are locked, and the corner handles change.

Notes:

- The Teacher menu must be enabled for the *Locked Item* option to appear. To turn the Teacher menu on or off, click **Enable Teacher Menu** on the **Teacher** menu.
- If you were to choose the *Locked Step* option from the Teacher menu, it would preserve Step 1 but it would not allow pupils to add to the step in any way. Nor would any of your work so far transfer to subsequent steps. Be aware that this option exists.

3. Now lock the three Maths Text Boxes in Step 1 as well.

Duplication options for Maths Text Boxes in steps

When you add a step in the Step Workspace, your previous work is duplicated in the new one. However, by default, Maths Text Boxes do not duplicate. In this project, since it will help if you can continue to see the story problem in subsequent steps, we will change the default setting for specific Maths Text Boxes.

1. Click to select the text box where you have written the story problem beginning with *Andrew....*
2. Select **Maths Text Box in Next Step** on the **Teacher** menu and choose **Duplicate With Contents**.

Since you will be explaining your work in the empty box in each step, you want the box itself to appear in each new step, but without transferring the contents from the previous step.

- Select the empty text box and select **Maths Text Box in Next Step** on the **Teacher** menu and choose **Duplicate Without Contents**.

Solving the problem

Add colour tiles to Step 1 to begin solving the problem.

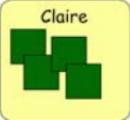
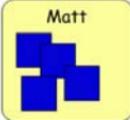
1. Click the red colour tile in the **Maths palette** and drag it into the first grouper.
2. Click on the red colour tile again in the **Maths palette** to create three more in the grouper. It's okay if tiles overlap.
3. Repeat these steps to finish splitting the "12 sweets." Add four green colour tiles to the second grouper and four blue colour tiles to the third one.

You have now represented the first part of the word problem.

4. Describe what you did in the blank text box on the right:

1 Show and explain your work for every step!

Andrew, Claire and Matt split 12 sweets equally. Matt gave 2 sweets to Claire and then Claire gave half of her sweets to Andrew. How many sweets do they have now?

<p>Andrew</p> 	<p>Claire</p> 	<p>Matt</p> 	<p>12 sweets were split equally. Each student gets 4 sweets.</p>
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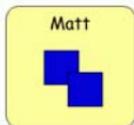
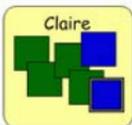
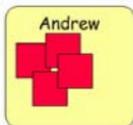
Step 2

1. Click the **Add Step** button  on the **Maths** toolbar and add Step 2. Notice what gets duplicated based on the settings you chose in Step 1.
2. Now represent the next part of the problem by multi-selecting two of Matt's blue colour tiles and dragging them into Claire's grouper.

3. Describe what you did in the blank text box on the right:

2

Andrew, Claire and Matt split 12 sweets equally. Matt gave 2 sweets to Claire and then Claire gave half of her sweets to Andrew. How many sweets do they have now?



Matt gave 2 of his sweets to Claire. Now Claire has 6 sweets.

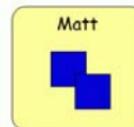
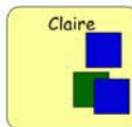
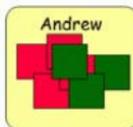
Step 3

1. Click the **Add Step** button on the **Maths** toolbar again and add Step 3.
2. Now represent the final step in the problem by multi-selecting three of Claire's green colour tiles and dragging them into Andrew's grouper.
3. Describe what you did in the blank text box on the right. You can also resize text and make your text box containing the answer smaller.

Step 3 of your project should look something like this:

3

Andrew, Claire and Matt split 12 sweets equally. Matt gave 2 sweets to Claire and then Claire gave half of her sweets to Andrew. How many sweets do they have now?



Claire gives half (3) of her sweets to Andrew. Now Andrew has 7, Claire has 3 and Matt has 2 sweets.

Deleting and navigating between steps

If you add another step by accident, you can delete it. Note that you can only delete the last step at any time from a maths project in the Step Workspace.

1. Add a 4th step to your project.
2. To delete it, click the **Delete Step** button  on the **Maths** toolbar.
3. You will be prompted to confirm that you want to delete the step. Click **Yes** to proceed.
4. You can repeat this process to delete multiple steps.

Note: If you accidentally delete a step, you can click the **Undo** button on the **Maths** toolbar to undo up to your last eight changes.

5. To navigate through your steps, click the **Go to Previous Step**  and **Go to Next Step**  buttons on the **Maths** toolbar.

Printing your project

To print a project, click **Print** on the **File** menu.

You can also choose from the following options before printing:

Selecting page orientation

In Maths View, landscape orientation is the default. To switch to portrait orientation before printing a project:

1. On the **File** menu, click **Page Setup**.
2. Next to **Orientation**, click the **Portrait** or **Landscape** icon (Macintosh).
–or–
Under **Orientation**, select **Portrait** or **Landscape** (Windows).

Selecting paper size

Letter is the default paper size in Kidspiration. To select a different paper size:

1. On the **File** menu, click **Page Setup**.
2. In the **Paper** list, select the paper size you want (Macintosh).
–or–
3. Under **Paper**, select the paper size you want in the **Size** list (Windows).

Printing page numbers

If you choose to print page numbers, they will appear at the bottom of the page. To print page numbers:

1. Click the **Pupil Name** button.
2. Place a tick in the box where indicated.

Closing your project and returning to the Kidspiration Starter

Congratulations! You have completed *Tutorial Two: Using steps to show progression of work*. To close your project and return to the **Kidspiration Starter**, click the **Go to Starter** button.



When you return to the Kidspiration Starter, you are prompted to save the open project. Click **Yes** if you want to save the project.