

# Tutorial One: Exploring math concepts with color tiles

In this lesson you will create a new project using the Kidspiration Color Tiles™ Math Tool. In the context of representing math expressions, solving a word problem and exploring area, you will learn to do the following:

- Start Kidspiration
- Start a new Kidspiration Color Tiles project
- Add your name to a project
- Save your work
- Use a Math Text Box
- Delete an object from the workspace
- Undo and redo your work
- Lock an item
- Create a password for the Teacher menu
- Move color tiles onto the workspace
- Select multiple items on the workspace
- Duplicate items on the workspace
- Resize manipulatives on the workspace
- Use the Cross-Out Stamp
- Add pages to your project
- Use a Math SuperGrouper™
- Change the color of a color tile
- Lock a page
- Add a background grid
- Use a line from the Math palette
- Print your project
- Close your project and return to the Kidspiration Starter

## Starting Kidspiration

### To start Kidspiration on a Macintosh:

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



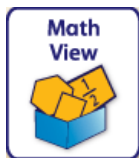
The Kidspiration Starter opens.

### To start Kidspiration in Windows:

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

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 **Math View** button to open the Math Tool Starter.



## Starting a new Kidspiration Color Tiles project

To start a new Kidspiration Color Tiles project, click the **Color Tiles** button on the **Math Tool Starter**.



A new blank workspace opens in the Kidspiration Color Tiles Math Tool.

## Adding your name to a project

1. On the **Math** toolbar, click the **Student Name** button



2. Type your name in the box where indicated.

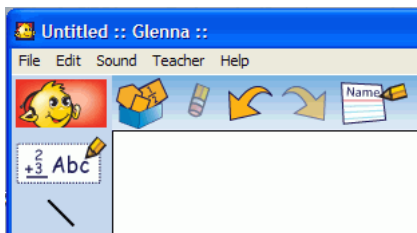
For the examples in this tutorial we will use the name “Glenna.”

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

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

4. Click **OK**.

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



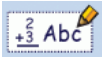
## Saving your work

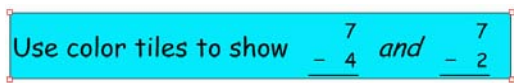
1. On the **File** menu, click **Save**.
2. In the folder list, click the folder where you want to save the project.
3. Type a name for the project, and then click **Save**.

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








## Using a Math Text Box

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




1. Click the **Math Text Box**  in the **Math palette** and drag it onto your workspace.
2. Click inside the text box and write **Use color tiles to show 7 minus 4 and 7 minus 2**, but follow the steps below so it looks like this:



Use color tiles to show  $\begin{array}{r} 7 \\ - 4 \\ \hline \end{array}$  and  $\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$ .

3. Click the **Open Math Frame** button  on the **Bottom** toolbar to create the vertical frames and click the **Minus Sign** button  on the **Bottom** toolbar to add the minus signs.
4. Enlarge the text size by clicking the **Resize Text** button  on the **Bottom** toolbar once.
5. Click outside the box and then back on it to select it. When a text box is selected, it has corner handles .
6. Resize the text box by dragging on one or more of its corner handles so that all of the text fits on one line.
7. Move the text box up so it is near the top of the workspace.
8. Click back inside the box and drag your cursor over the word “and.” Italicize it by clicking the **Italic** button  on the **Bottom** toolbar.
9. Click outside the text box and then back on it to select it. Add a border and a background color to the text box by clicking the **Border** button  on the **Bottom** toolbar, and then the **Background Color** button  next to it. Choose a background color from the palette.

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

- You can delete an item by selecting it and clicking the **Clear** button  on the **Math** toolbar.  
-or-
- You can undo up to the last eight changes in your project by clicking the **Undo** button  on the **Math** 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 **Math** toolbar.

## Locking an item on the workspace

Now that your Math Text Box is set up, you can lock it so that it cannot be moved or deleted.

- With the text box selected, click **Locked Item** on the **Teacher** menu.

A checkmark appears next to *Locked Item* when the text box is locked, and the corner handles change on the box.

**Note:** 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.

## Creating a password for the Teacher menu

You can create a password for the Teacher menu to prevent students from using it and changing teacher preferences.

1. On the **Teacher** menu, click **Application Options**.
2. Select the **Password Enabled** check box.
3. Click **Set Password**.

The Set Password dialog box appears.

4. Type the password you want to use in the **Enter Password** box.

5. 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.”

## Moving color tiles onto the workspace

Now you’ll bring out some color tiles to represent the expressions.

1. Click on the red color tile on the **Math palette** and drag it onto the workspace. Do this six more times or just click on the tile in the palette six more times to create multiple instances of it.
2. Align the tiles horizontally on your workspace, somewhere below the text box. Notice that the tiles “snap” together as you are lining them up.

## Selecting multiple items on the workspace

- Multi-select the seven tiles by clicking an area of open workspace and dragging your cursor over them.

or


Hold down the **Shift** key and click each item you want to select.

*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 Math View’s Bottom toolbar when **Stylus Mode** is checked in **Application Options** on the **Teacher** menu.

## Duplicating items on the workspace

1. Select **Copy** from the **Edit** menu and then click on an area below the seven tiles and click **Paste**.
2. With the new row still multi-selected, drag it into position somewhere below the first row.

## Resizing manipulatives on the workspace

- Resize all of the color tiles on the workspace by clicking the **Resize Manipulatives** button  once on the **Bottom** toolbar.


Your project should look something like this:

$$\text{Use color tiles to show } \begin{array}{r} 7 \\ - 4 \end{array} \text{ and } \begin{array}{r} 7 \\ - 2 \end{array}$$



## Using the Cross-Out Stamp

Use the Cross-Out Stamp to mark tiles and visually represent the subtraction in expressions.

1. Multi-select four color tiles in the first row and two color tiles in the second row by holding down the **Shift** key and clicking on each tile one at a time.
2. Now click the **Cross-Out Stamp** button  on the **Bottom** toolbar.

The tiles should look like this:

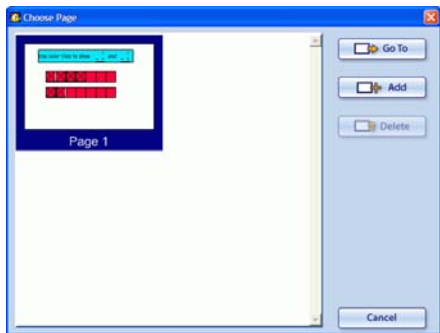




## Adding pages to your project

Math View allows for the creation of multiple pages within a single document, giving teachers the opportunity to create an extended activity with multiple parts, or students the opportunity to show their thinking using one or more tools.

Now you'll learn how to add two new pages to your project so you can continue working with Kidspiration Color Tiles.

1. Click the **Go To Page** button  on the **Math** toolbar to open the **Choose Page** dialog.



2. Click the **Add Page** button  to add a new page.
3. Choose **Color Tiles** from the **Math Tool Starter**, and repeat the process to add a third page also using Kidspiration Color Tiles.
4. Navigate back to page 2 by clicking the **Go to Previous Page** button  on the **Math** toolbar.

**Note:** When you have more than one page in a project, a page number for the page you are working on appears in the upper-left corner of the workspace.


## Working with Math SuperGroupers™

Math SuperGroupers are similar to the SuperGroupers in Picture View. They are used for grouping, sorting, categorizing and counting activities.

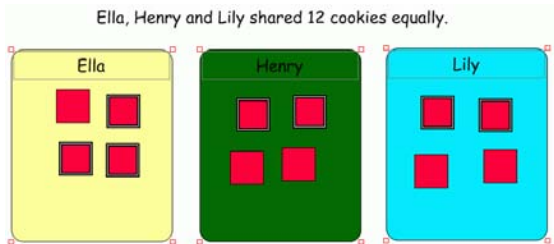
On page 2 of your project, you will model a word problem using Math SuperGroupers.

1. Drag a **Math Text Box** onto the workspace and type **Ella, Henry and Lily shared 12 cookies equally.**



2. Click off the box and then back on it to select it. Resize the text box by dragging one or more of its corner handles so that all of the text fits on one line, and then move it to the top of the workspace.
3. Click and drag the rectangular **Math SuperGrouper** from the **Math palette** onto the left side workspace.
4. Click and drag one of its corner handles to make it about 20% larger.
5. Select **Copy** from the **Edit** menu, click to an area of open workspace and click **Paste**.
7. Click another area of open workspace and click **Paste** one more time to create a third grouper on the workspace.
8. Click and drag the groupers to line them up horizontally across the workspace.
9. Notice that when you have a grouper selected, a label box appears in dotted lines at the top.
10. Double-click inside the label box to select it and a cursor will appear. Type **Ella** into the first one, **Henry** into the second one and **Lily** into the third one.
11. You may want to change the background color of the groupers to give your document visual interest. Experiment by changing Henry's grouper to green and Lily's grouper to turquoise.
  - Click to select their groupers one at a time and then click the corresponding color from **Color** buttons  on the **Bottom** toolbar.
12. Now that your groupers are ready, use color tiles to represent the situation. Drag 12 red tiles from the **Math palette**, distributing them until there are four in each grouper.


Your project should look something like this:



**Note:** Once manipulatives are placed inside a grouper, they will remain there until you remove them. Try dragging one of the groupers away from the group and then back and notice that the tiles move with it.

## Changing the color of color tiles


You can also change the color of the tiles inside the groupers. Try coloring Ella's tiles orange, Henry's tiles purple and Lily's tiles bright pink.

1. Multi-select the color tiles inside Ella's grouper by holding down the **Shift** key and clicking each tile.
2. Click the orange **Color** button on the **Bottom** toolbar.
3. Repeat this process to change the color of the tiles in Henry's grouper to purple.
4. To color Lily's tiles hot pink, you will need to click the **More Colors** button  and find bright pink in the expanded color palette.

## Locking a page

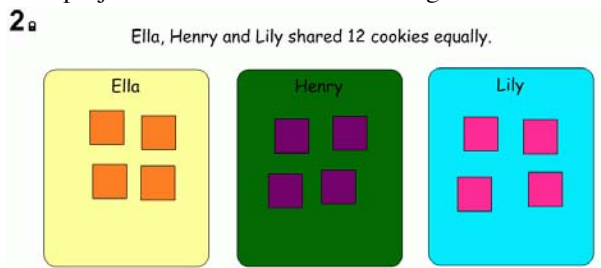
The ability to lock pages in a document allows you to set up an example within an activity and prevent students from altering any of the items on the workspace or adding to the page.

- To lock page 2, click **Locked Page** on the **Teacher** menu.

A checkmark appears next to Locked Page when the page is locked, and a **Locked Page** indicator  appears next to the page number.




**Note:** The Teacher menu must be enabled for the Locked Page option to appear. To turn the Teacher menu on or off, click **Enable Teacher Menu** on the **Teacher** menu.

Your project should now look something like this:




## Using a background grid

A background grid can help you to organize color tiles on the workspace, making it easier to create bar charts, build models, and explore perimeter and area.

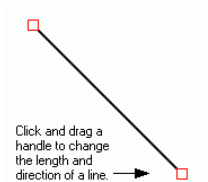
1. Go to page 3 of your project by clicking the **Go to Next Page** button  on the **Math** toolbar.
2. Click the **Show Background Grid** button  on the **Bottom** toolbar.
3. Resize the grid to large by clicking the **Resize Manipulatives** button  on the **Bottom** toolbar one time.

## Using a line

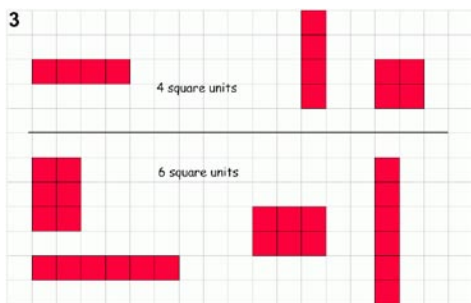
A line is available in the **Math palette** and is helpful for visually organizing your project.

1. Click and drag a line  from the **Math palette** onto the workspace.

- With the line selected, hold down the **Shift** key and drag on one of the line's handles to both lengthen it and move it into a horizontal position. Work it into position across the middle of the grid. (When you hold down the **Shift** key, you can drag a line sideways in 45 degree increments.)



- Drag two **Math Text Boxes** onto the workspace, one above the line and one below it.
  - Type **4 square units** into the first box, and **6 square units** into the second box.
  - Position your cursor somewhere in the upper-half of the workspace and click a color tile in the **Math palette** four times.
  - Move tiles on the grid to make a rectangle with an area of 4 square units. Notice that the tiles “snap” into position on the grid.
  - Continue bringing out tiles to create all possible rectangles with areas of 4 square units.
  - Repeat this process with six tiles on the lower-half of the workspace.
- Your project should look something like this:



## 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 Math 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 **Student Name** button.
2. Select the check box where indicated.

## Closing your project and returning to the Kidspiration Starter

Congratulations! You have completed *Tutorial One: Exploring math concepts with color tiles*. 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.