

Excel-ent Activities Across the Grades

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WHY A TECHTORIAL?

What will I learn today?

You will learn ten easy ways to use Excel in the K-12 classroom.

What hardware and/or software does the techtorial apply to?

The techtorial applies to Microsoft Excel, which usually is included in the Microsoft Office suite.

Which National Educational Technology Standards for Teachers does the techtorial address?

The techtorial will help teachers accomplish standards IIA, IVB, and VIB.in particular.

The International Society for Technology in Education (ISTE) has developed a set of National Educational Technology Standards for Teachers. Standards or Performance Indicators are included for each techtorial to help teachers and administrators improve technology proficiency. For a complete description of the standards indicated, go to [NETS for Teachers](#).

CREATE A SPREADSHEET TEMPLATE

After you create any of the Excel activities in this techtorial, you'll want to save the activity template, so students can work on that activity without changing the activity itself. To create that template:

- Open the spreadsheet containing the activity you have created.
- Click File>Save As. Click Template *.xlt in the dropdown menu next to File Type.
- Click Save to save the template to your Desktop or My Documents folder (*not* to your templates folder).
- Using the school's network or a floppy disk, place a copy of the template on each student or classroom computer.

Your activity is now saved as an Excel template. Students can use it, but they cannot change it. They also can save their work; it will be saved as a new file.

Note: If you are new to Excel, take a look at last week's techtorial [Excel for Beginners](#) before beginning this session.

USING EXCEL IN PRESCHOOL THROUGH FIRST GRADE

Young students are learning mouse skills, such as clicking, holding, and dragging. You can reinforce those skills with the following activities:

Activity 1:

- Open a spreadsheet template in Excel.
- In the menu bar at the top of the spreadsheet window, click Insert>Picture>Clip Art. Click an image (duck, cat, star ...) and insert the image into column B of the spreadsheet. (If the image is the wrong size, click the image, click Format>Picture, and choose the Size tab to adjust it.)
- Click Edit>Copy> to create a copy of the image, and then click Edit>Paste to place the copy to the right of the first image. Click Edit>Paste until you have placed the desired number of images in that row.
- Click beneath the first row and create another row of images. Continue creating rows of images, inserting a different number of images into each row, until you have the desired number of rows.
- Follow the directions on the previous screen of this techtorial to create an activity template.
- Ask students to count the images in each row and type the correct number in column A -- to the left of each group of images.

MORE PRE-K-1 ACTIVITIES

Activity 2:

- Open a spreadsheet template in Excel.
- Type color words (blue, yellow, red...), one word to a cell, in several rows in column A. Leave empty two cells between each word.
- Follow the directions on the previous screen of this techtorial to create an activity template.

- Ask students to click in the cell to the right of each color word, and then click the paint can in the Drawing toolbar to fill each cell with the color that matches the word. (If the paint can is not visible, have students go to View>Toolbars> Drawing to open the drawing and painting tools.)

Activity 3:

- Open a spreadsheet template in Excel.
- Put in row 1 of the spreadsheet the letter(s) that students are learning, one letter to a cell. Leave empty a few cells between each word.
- Click Insert>Picture> Clip Art. Click to insert at the bottom of the spreadsheet pictures of animals that begin with each of those letters.
- Follow the directions on the previous screen of this tutorial to create an activity template.
- Ask students to drag each image into the column under the first letter of the animal's name.

USING EXCEL IN GRADES 2-5

Older elementary level students can use Excel spreadsheets to tally data and create simple graphs. Keep the lessons fun by having students survey silly topics and graph the results!

- Invite students to rate the taste of cafeteria food on a scale from 1 to 3 -- from "Yuk!" to "I love it!" -- and enter the data into a spreadsheet. Have students highlight the survey results and then click Insert>Chart to make a simple graph of those results.
- Encourage students to compare their survey results with results obtained by other classes.
- After students have worked as a group to create a spreadsheet and chart, ask each student to conduct his or her own survey, enter the results into a spreadsheet, and graph the results.
- Encourage older students to experiment with the different types of graphs and charts available in Excel to determine which type best displays their survey results.

USING EXCEL IN SOCIAL STUDIES CLASSES

Students in social studies classes can use Excel to

- compile data about two countries from the CIA's [World Factbook](#), chart their findings, and then use their charts as a framework for discussions about current or historical events;
- use data from Kingwood College Library's [American Cultural History](#) site to create a spreadsheet listing the authors, politicians, singers, architects, and so on of each decade of the 20th century;
- research, chart, and compare the cost-of-living and other data from the American Cultural History site.

Encourage students to experiment with fonts, type size and style, background colors, cell size, and so on to achieve a more polished look.

USING EXCEL IN PHYS ED AND HEALTH

Students taking physical education or health classes can use Excel to

- chart their fitness levels, heart rates, exercise repetitions, and so on, in personal journals;
- record changes in that data;
- plot their progress.

USING EXCEL IN ART

Students in art classes can

- create art with Excel, using the paint can and other drawing and formatting tools;
- insert a photograph into Excel, and then use the gridlines and Comment "stickies" to analyze the photograph. (Go to Insert > Comment to insert comments.)

USING EXCEL TO CREATE STUDY GUIDES

Excel also can be used to create study guides. Students might, for example:

- Type the word TOPIC into cell A1, the word CAUSE into cell B1, the word EFFECT into cell C1, and the words CURRENT ISSUE into cell D1.
- Type an historical event into cell A2, type the cause of that event into cell B2, type an immediate result of that event into cell C2, and type an example of how that event affects the world today into cell D2.

Study guides can be created to accommodate information in a number of disciplines. In a literature class, for example, headings might include Character, Motivation, Action, and Outcome.

Students could use spreadsheet study guides to review for AP or other tests, or to organize and synthesize information for their own use.

USING EXCEL FOR CLASSROOM MANAGEMENT

Students aren't the only ones who can benefit from using Excel. Teachers can use the program to

- average grades (See [Excel for Beginners](#).);
- chart individual student progress;
- keep track of which students have completed individual steps of a major project.

TELL ME MORE!

Where can I find more information about using Excel?

[Spreadsheet Magic](#) is probably one of the best Excel resource for teachers. You also might try [Classrooms that Excel Resources](#) for teacher-created tips on using Excel in a variety of settings.