

Overview

Bring Exploration And Discovery Into Your Classroom With eTools

eTools is an interactive software package that teachers can use in their classrooms for remediation, review, enrichment, and discovery-based exploration. Teachers of all grades can find a place for eTools in their curriculum. The broad range of coverage of mathematical topics means that as a student's knowledge expands, the possible applications and connections for using eTools expand also.

Presentations to the entire classroom will be dynamic, but providing students with time for individual and small group computer time will lead students to a better understanding of topics and encourage them to consider "what if" situations.

Using eTools is a fun way to enhance the teaching of a math skill. You will know which students will benefit from following a basic step-by-step procedural activity and which students will excel with an open-ended discovery activity. The connections, uses, and possibilities are endless.

As you read this you might be thinking, "Sounds good, but where do I start?" Included within are 52 activities to guide you through the basic uses of the nine tools:

| | | |
|---------------------------|--------------------|---------------------------------|
| Place-Value Blocks | Time | Spreadsheet/Data/Grapher |
| Counters | Fractions | Geometry Shapes |
| Money | Probability | Geometry Drawing |

The Step by Step activities that follow are designed to give teachers hands-on practical experience in the mechanics of using each tool in eTools. These are not presented as activities to develop conceptual understanding of a math skill, but rather provide examples of basic uses for eTools. Once you have experimented with a particular tool, you will be able to align specific lessons and activities to that tool and engage your students in active learning.

Each Step by Step activity is provided in English and Spanish.



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Each activity is presented in the same format.

At the main menu for eTools, select the tool that is shown in the upper left corner of the Step by Step activity. Below the tool logo on the Step by Step page, the workspace and specific settings are shown. Select the workspace first. Then set the menus along the top of the workspace to match the settings shown in these graphic displays.

When more than one workspace is shown, you may choose either one. If you want to match the screen shown in the lower portion of the page, use the workspace selected on screens shown. However, your screens will not always match the screens shown because placement of cubes, lines, shapes, etc. will vary. Generally, the appearance of your screen will be similar to the screen shown in the Step by Step activity.

The introductory paragraph in each Step by Step activity provides general information about how the tools interact to cover the math skill. Often optional features are highlighted in this introduction, such as toggling the Odometer on and off, or hiding and displaying labels. The menus along the top of the workspace vary based on the selected tool.

Each step gives instructions to click on specific areas or buttons on your screen. Pieces of the screen are included in the steps so that you can locate the exact area or button on which to click. Many buttons look similar to other buttons. If you mistakenly click on the wrong button, click on the broom button to clear the workspace and start again.

The eTools screens shown help you gauge your progress and understanding. It is perfectly acceptable for your screen to differ from the screens shown on the Step by Step page.

Because the intent of these activities is to teach basic mechanics, the instructions were written in general terms. However, in many cases a specific example is needed to guide you through each step. When you read an instruction such as "Use \$3.20," you may use any amount you desire and adjust the instruction accordingly. To get the most from these Step by Step activities, follow each step as instructed. Then repeat the steps using your own data or example.

The time required to complete an activity is minimal (approximately 10 minutes per activity). Once you are comfortable with the basics of the software, the ease of use will encourage both you and your students to test several variations of the tools and menus.

The screenshot shows the 'Place-Value Blocks' interface. Callout boxes point to various elements:

- eTool selected from main menu:** Points to the 'Place-Value Blocks' logo in the top left.
- Settings to select from menus along top of screen:** Points to the 'Settings' menu at the top left of the workspace.
- Workspace to select from bottom left column of tools menus:** Points to the 'Workspace' selection area at the bottom left.
- Related math skill:** Points to the 'Modeling Numbers' title and the '1' icon in the top right.
- Screen appearance at given step:** Points to the numbered screenshots (1, 2, 3, 4, 5, 6) on the right side of the workspace.

The main workspace contains instructions for modeling numbers using place-value blocks, including a list of steps and a visual representation of the number 4,372.

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