

Math Resources

Mathpad and Mathpad Plus: Fractions and Decimals

These programs were designed for students with a wide array of special needs, including those with motor, sensory, and learning impairments.

Price: \$Mathpad	\$107
\$Mathpad Plus	\$133

Platform: Both Windows and Mac

Main Features:

- Mathpad with support addition, subtraction, multiplication, division
- Mathpad Plus supports above and fraction, decimals, and includes some manipulatives (e.g. parts of circles, etc)
- Access methods: mouse, switch, Intellikeys, keyboard
- Teacher/student authors own worksheets
- Teacher management features
- Speech Feedback
- Some auto-navigation support (for switch users)
- Cross Out/Regroup features for mathematical operations (e.g. subtraction)
- Lines or grid layout options
- Adjustable font, colour, display size
- Horizontal/Vertical format options
- Testing Restrictions
- Built-in calculator

Strengths

- Grid/line worksheet layout options
- Good speech feedback feature – will speak problem, answer entry, toolbar
- Keyboard and switch accessible
- Graphic interface with manipulatives helpful for visual learners

Limitations

- Auto-navigation – moving entry box to “best guess” position is limited. Auto navigation does not move to every location necessary to solve the problem correctly, especially when functions such as regrouping are necessary.
- Calculator is not switch accessible.
- No embedded tutor/help

Virtual Pencil Arithmetic

Virtual Pencil Arithmetic was designed as a tool for students who are “pencil impaired” – unable to operate a pencil effectively including someone who is blind, is visually impaired, is motor impaired, or has a learning disability.

Price: Virtual Pencil Arithmetic - \$199.00

Virtual Pencil Algebra - \$399.00

Connect Outloud - \$75.00

Platform: Windows

Main Features

- Handles addition, subtraction, multiplication, division, decimals, fractions
- Full auto-navigation
- Adjustable font, colour, display size, cursor size
- Cross-out/regroup features
- Embedded tutor – includes math tutor
- Access: keyboard and mouse
- Speech feedback and Braille display (if used with Connect Outloud or JAWS)
- Teacher management features
- Test (non-tutor) mode
- Assignments can be e-mailed, saved to disk, printed, Braille embossed

Strengths:

- Excellent auto-navigation features – will step the student through entire problems in tutor mode
- Embedded tutor provides different levels of audible and visual support
- Full keyboard access
- Extended tutor will provide help after a number of errors (can be customized)
- Multiple format support

Limitations:

- Speech not embedded, must purchase extra program (Connect Outloud)
- No grids or lines layout option
- Screen reader may provide too much feedback for learners without visual impairments, even on low verbosity setting
- Is more reliant on keyboard navigation than mouse driven – may be less intuitive to navigate via keyboard for some users

Internet Sites – Technology Resources for Math

Math Internet Resources		
Virtual Manipulatives	Utah State University National Library of Virtual Manipulatives	http://matti.usu.edu
	Explore Learning Gizmos	http://www.explorelarning.com
	Pattern Blocks, Fractions, Shapes	http://www.best.com/~ejad/java/patterns
	Visual Fractions	http://www.visualfractions.com
	Educational Java Programs	http://www.arcytech.org/java
	NCTM manipulative applets	http://standards.nctm.org/document/eexamples
	Math and Puzzles	http://www.cut-the-knot.org/front.shtml
	Tangrams	http://www.tangram.i-p.com
	Middle School Math	http://www.kenton.k12.ky.us/TR/msmath.htm
	BBC Math Games	http://www.bbc.co.uk/education/mathsfle/index.shtml
General Resources	Tangible Math	http://support.broderbund.com/faq_list.asp?id=1294819683#downloads
	Technical Tutoring – general information	http://www.hyper-ad.com/tutoring/Default.htm
	SOS Math	http://www.sosmath.com
	Cynthia Lanus – Rice Math Lessons, links and manipulatives	http://math.rice.edu/~lanus/Lessons/index.html
	NCTM	http://www.nctm.org
	Math Forum	http://mathforum.org
	Microsoft Math	http://www.microsoft.com/education/?ID=LessonPlansResults&LearningArea1=mathematics
	Mathsnet	http://mathsnet.net
	Score Mathematics	http://score.kings.k12.ca.us/lessons.html
	Georgia Tech Barrier Free Education	http://barrier-free.arch.gatech.edu/index.html
	Resource Room Math	http://www.resourceroom.net/math/index.asp
	LD Online	http://www.ldonline.org/ld2/test/article.php?max=20&id=0&loc=70
	LD Resources	http://www.ldresources.org/?s=math&submit=Search
AAA Math	http://www.aaamath.com	

Internet Sites – Technology Resources for Math

High Tech Tools		
DANA	Portable word process with Palm OS software; utilize existing spreadsheet/ database software and/or download commercial software math programs	http://www.alphasmart.com
Calculuscribe	Portable word processor and interactive calculator that lets you do math (arithmetic, algebra and trig)	http://www.calculuscribe.com
Math Type Software	A powerful commercial product that is an extension of Equation Editor	http://www.dessci.com
Riverdeep Software	<ul style="list-style-type: none"> • Tangible Math and Math Toolbox – Grades 6-12 • Mighty Math Series – basic concepts up to algebra and geometry • Destination Math – K – 12 • Millie's Math House – basic concepts 	http://www.riverdeep.com (Search for products by name)
Intellitools Software	<ul style="list-style-type: none"> • Math Concepts 1 and 2: beginning math concepts and interactive game format • IntelliMathics: virtual manipulative, several formats (base, 10, fraction bars, tangrams, etc.) • MathPad: electronic worksheet for basic math, voice output • MathPad+: electronic worksheet for fractions and decimals, voice output, virtual manipulatives 	http://www.intellitools.com
MathTalk	Voice Activated/Speech recognition computer based calculator and other math program	http://www.mathtalk.com
Calculators	Barrier Free Education – descriptive table of various accessible calculators	http://barrier-free.arch.gatech.edu/Tools/calc.html
	Coinulator, Coin Abacus, Money Calc	http://www.parentbanc.com
	Computer Graphing and Scientific	<ul style="list-style-type: none"> • http://www.viewplus.com • http://www.independentliving.com (click on calculators)
	Talking Calculators	<ul style="list-style-type: none"> • http://www.superproducts.com (click on Talking Calculators) • http://www.independentliving.com (click on calculators) • http://www.maxiaids.com/store/prodList.asp?idstore=1&idcategory=71
	Large Key Calculators	<ul style="list-style-type: none"> • http://www.enablemart.com/products_detail.asp?id=369 • http://www.enablemart.com/products_detail.asp?id=699 • http://www.sharpelectronics.com/products/ModelLanding/0.1058,923.00.html