

PARCC Technology Skills: Grades 6-8

2015-2016

This is not a curriculum document, but a reference to be used by technology and classroom teachers to ensure that the students have had practice with skills that they will need to interact with the technology-enhanced items that they will experience on the PARCC. The following chart lists the technology skills students need to be proficient in prior to taking the PARCC:

Click / tap	Select object	Use text highlighter
Scroll	Select text	Use calculator
Plot points	Select area	Rotate and use protractor
Drag and drop	Select and drag / slide	Rotate and use ruler
Type with text editor	Unselect	Use video player

The following websites offer a variety of resources that both technology and classroom teachers can access to support students. These and others can be found at:

<http://jayemtucker.wikispaces.com/++++++Tech+Tools+%26+Strategies+for+Online+Testing+including+PARCC>

Link	Description
http://nextgen.apps.sparcc.org/	The purpose of this website is to collect and share free online resources that can be used to help students develop familiarity and proficiency with the technology skills they will need for next generation assessments.
http://www.pearltrees.com/brandi_young/infohio-skills-online-testing/id12112629	This site is an excellent resource that will give students resources to practice 16 different tech skills.
http://www.parcconline.org/practice-tests	The tutorial tab on this page links to a site that helps students and teachers gain familiarity with the computer based tools and features that will appear on the PARCC assessments.
http://nextgen.apps.sparcc.org/kb	This site has links to 5 sites for free keyboarding skills practice and 29 games to practice keyboarding.

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Link	Description
Grades 6-8: http://practice.parcctestnav.com/resources/GR6-8_EE_Tips_v0.1.pdf	Tips from PARCC on: Math tools used for typing out responses to open-ended math questions.
https://www.mathway.com/problemwidget.aspx?affiliateid=affil18092	Useful site that provides a platform for typing math equations from basic math to calculus.
PARCC Calculator Policy (revised July 2014) http://www.parcconline.org/sites/parcc/files/PARCC%20Calculator%20Policy%20-%20Updated%207-31-14.pdf 6-7 Four function calc http://www.online-calculator.com/full-screen-calculator/ Downloadable calc: http://www.eeweb.com/toolbox/basic-calculator 8 Scientific Calc: http://www.online-calculator.com/online-scientific-calculator/ Downloadable calcs: http://www.eeweb.com/toolbox/calculator	PARCC Policy on Calculators Links for online calculators and downloadable calculators. <ul style="list-style-type: none"> • Grades 6-7 are permitted only a Four function calculator • Grade 8 is permitted a scientific calculator
http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html	Great site that provides virtual manipulative in math for Grades K-8, including a Protractor and Ruler.

The monthly grade level charts that follow were developed by a group of technology teachers to highlight when the technology skills will be covered in the first semester. The accessibility features are tools that are part of the platform that students will need to be familiar with as well.

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GRADE 6

Month	PARCC SKILL	Accessibility Feature
October	<ul style="list-style-type: none"> • Click the mouse /tap screen • Keyboarding: 3 pages in 40-50 minutes • Highlight text • Cut and paste • Selecting text • Selecting objects • Write equations using math keys (see “tips” sheet) 	<ul style="list-style-type: none"> • Spell check • Highlighting tool • Editing tools
November	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Drag and Drop • On-screen calculators • Comparing calculator keys • On-screen protractor ruler • Write equations using math keys (see “tips” sheet) 	<ul style="list-style-type: none"> • Keyboard short cuts • Writing tools
December	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Manipulate graphs • Plot points • Split screen & scrolling • Write equations using math keys (see “tips” sheet) 	
January	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Running simulations • Use a video player • Write equations using math keys (see “tips” sheet) 	
February	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Write equations using math keys (see “tips” sheet) 	<ul style="list-style-type: none"> • Pop up glossary • Flag new items • Line reader tool

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Grade 7

Month	PARCC SKILL	Accessibility Feature
October	<ul style="list-style-type: none"> • Click the mouse /tap screen • Keyboarding: 3 pages in 40-50 minutes • Highlight text • Cut and paste • Selecting text • Selecting objects • Write equations using math keys (see "tips" sheet) 	<ul style="list-style-type: none"> • Spell check • Highlighting tool • Editing tools
November	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Drag and Drop • On-screen calculators • Comparing calculator keys • On-screen protractor ruler • Write equations using math keys (see "tips" sheet) 	<ul style="list-style-type: none"> • Keyboard short cuts • Writing tools
December	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Manipulate graphs • Plot points • Split screen & scrolling • Write equations using math keys (see "tips" sheet) 	
January	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Running simulations • Use a video player • Write equations using math keys (see "tips" sheet) 	
February	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Write equations using math keys (see "tips" sheet) 	<ul style="list-style-type: none"> • Pop up glossary • Flag new items • Line reader tool

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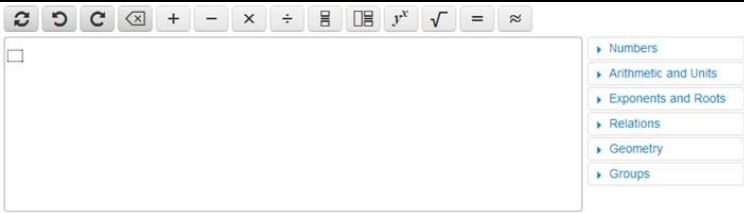

2015-2016

Grade 8

Month	PARCC SKILL	Accessibility Feature
October	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Click the mouse /tap screen • Highlight text • Cut and paste • Selecting text • Selecting objects Write equations using math keys (see “tips” sheet) 	<ul style="list-style-type: none"> • Spell check • Highlighting tool • Editing tools
November	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Drag and Drop • On-screen calculators • Comparing calculator keys • On-screen protractor ruler • Write equations using math keys (see “tips” sheet) 	<ul style="list-style-type: none"> • Keyboard short cuts • Writing tools
December	<ul style="list-style-type: none"> • Keyboarding: 3 pages in 40-50 minutes • Manipulate graphs • Plot points • Split screen & scrolling • Write equations using math keys (see “tips” sheet) 	
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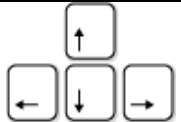
Tips for Entering Math Answers


- Some math questions ask you to write your answer in a box like the one here. This is NOT a calculator. You should use this box the same way you use a pencil and paper to write a math problem.



- You can use the buttons and math symbols around the box to write your answer. You can also use your keyboard to enter numbers, letters, and some math symbols. Remember that not all math symbols are on the keyboard.
- Click on the subject names on the right side of the answer box to open the menus. Click on them again to close the menus. All the math symbols are displayed on page 2 of this document.
- If you are using a tablet, select the “more symbols” button  to show the side menus.


How to Move or Change Your Answer


- Use the arrow keys on your keyboard to move around in the box and to help with move out of fractions and parentheses.


- You can use these four buttons to change your answer:

 “Clear all” to start over

 “Undo” what you just entered

 “Backspace” to remove math to the left

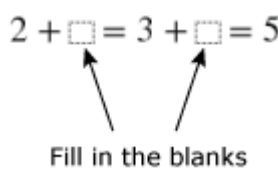

 “Redo” to restore what you deleted
- Some symbols like \times or \div act on two numbers. You can change those symbols to other symbols, but to delete the symbol you first need to delete one of the numbers it acts on.

$2 + 3$
 To change a plus (+) to a new symbol, select the plus (+), then select the button for the symbol you want to use.

$2 + 3$
 To delete a plus (+), first delete one of the numbers that it acts on. In this example, delete the 3 first. Then delete the plus (+).

How to Answer Fill-in-the-Blank Questions

- You may get to a new question and see numbers and symbols in the answer box. When you do, fill in all of the blanks to complete the answer.

$2 + \square = 3 + \square = 5$

- The “clear all” button  will erase only the blanks.
- If you don’t know the full answer, fill in as much of it as you can. You may get part of the answer right.


How to Mix Words and Math in Answers

- Some math questions ask you to show your work. When you see the words “Explain or justify your answer”, the answer box will let you type words, math symbols and numbers.
- When you enter a math symbol, the answer box will know you are entering math.
- When you hit the space bar or enter key, you can go back to entering text.
- Important — do NOT hit the space bar while you are entering math symbols or expressions. See examples below.**



Theansweris


If words run together, you are only entering math symbols and numbers



The answer is $1 + x$

If hitting the space bar gives spaces, you can enter text and math symbols and numbers together

Using the Math Symbols around the Answer Box

- The top bar and side menus around the answer box have math symbols that you can use to enter your answer.
- Some of these symbols are not on your keyboard, and you may need these symbols to enter your answer.
- If you are using a tablet, press the “more symbols” button  to show the side menus.
- The subject names on the right side of the answer box are side menus that contain extra math symbols you can use to enter your answer. The math symbols are grouped by subject name. Click on the subject name such as “Arithmetic and Units” to open a menu.
- After you open a couple of menus you may need to scroll up or down to see all the symbols. You can close a menu by clicking again on the menu subject name.

▼ Numbers

0	1	2	3
4	5	6	7
8	9	,	.
π			

▼ Arithmetic and Units

+	-	\times	\div
\pm	-	.	/
$\$$	$^{\circ}$	$\%$	

▼ Relations

=	\neq	\approx	\cong
<	>	\approx	\neq
\leq	\geq	\parallel	\neq

▼ Geometry

\rightarrow	\leftrightarrow	-	\parallel
\perp	\angle	m \angle	\triangle
\square	\odot		

▼ Exponents and Roots

y^x	$\sqrt{\quad}$	$\sqrt[3]{\quad}$
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▼ Groups

(\cdot)	[\cdot]	{ \cdot }	\cdot
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