

## Workshop

Inclusive technologies as an Equalizer: Practical Strategies for Diverse Learners.

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### Strategies for student learning: vocabulary

Instructional Challenge	Strategy	Technology Options
Student has difficulty understanding words in context	Provide a tool that dynamically alters vocabulary difficulty	Rewordify <a href="https://rewordify.com/">https://rewordify.com/</a>
The teacher provides a description, explanation, or example of the new term	Provide dictionaries that link to social media sources to provide relevant examples of current word usage	Word Source: The Social Dictionary <a href="http://word.sc/">http://word.sc/</a> Spezify <a href="http://spezify.com">http://spezify.com</a> Wordnik <a href="http://www.wordnik.com">http://www.wordnik.com</a>
	Emphasize linking a new word to antonyms and synonyms is a powerful way to help students make connections with what they already know.	VisuWords <a href="http://www.visuwords.com">http://www.visuwords.com</a> Visual Thesaurus <a href="https://www.visualthesaurus.com">https://www.visualthesaurus.com</a>

<p>Students create a nonlinguistic representation of the term</p>	<p>Have students create a sketch (graphic representation) to represent your new words</p>	<p>TuxPaint  <a href="http://www.tuxpaint.org">http://www.tuxpaint.org</a>  Inspiration  <a href="http://www.inspiration.com">http://www.inspiration.com</a>  Vocabulary Practice with Pictures  <a href="http://iteslj.org/v/ei/">http://iteslj.org/v/ei/</a></p>
<p>Students periodically do activities that help them add to their knowledge of vocabulary terms.</p>	<p>Have students create word art using a text passage or key vocabulary from a lesson or unit.</p>	<p>Wordle  <a href="http://wordle.net">http://wordle.net</a>  Wordsift  <a href="http://wordsift.com">http://wordsift.com</a>  Worditout  <a href="http://worditout.com">http://worditout.com</a></p>

## Strategies: Speaking and Writing

Instructional Challenge	Strategy	Technology Options
Students need opportunities to express themselves through oral language	Add voice to a photo	Blabberize <a href="https://blabberize.com/">https://blabberize.com/</a>
	Have students create a PowerPoint presentation then record their voice so that they can save the presentation	Adding Voice Over to PowerPoint <a href="https://www.youtube.com/watch?v=TsyYRvnedrQ">https://www.youtube.com/watch?v=TsyYRvnedrQ</a>
	Encourage students to engage in extended talk with a partner	Conferencing software like Google Hangouts, Zoom, Skype
Developing the writing mindset through daily writing exercises	Provides a single workd prompt; you have 60 seconds to write about it	Oneword <a href="Http://oneword.com/">Http://oneword.com/</a>
	Sends a weekly writing challenge to write a response that	100 Word Challenge <a href="http://100wc.net/">http://100wc.net/</a>

	is less than 100 words	
Students sometime have a difficult time identifying an appropriate topic on which to write a research project	Topics and resources for elementary and middle school students	42explore <a href="http://42explore.com">http://42explore.com</a>
	Designed for college students, this web site helps students identify topics within a discipline	Idea Generator <a href="http://guides.lib.odu.edu/ideagenerator">http://guides.lib.odu.edu/ideagenerator</a>
Student struggle to plan the focus of their writing because they do not understand their topic or the subtopics that they will include	Provide students with digital writing planning tools.	Cmap <a href="Http://cmap.ihmc.us">Http://cmap.ihmc.us</a> Draftbuilder <a href="Http://www.donjohnston.com">Http://www.donjohnston.com</a> Inspiration <a href="http://www.inspiration.com">http://www.inspiration.com</a>
Students need feedback on what and how to revise their writing	Upload the paper to Google Docs and share with a peer to review and make edits in real time	Google Docs <a href="http://docs.google.com">http://docs.google.com</a>

## Strategies: Access to Text

Instructional Challenge	Strategy	Technology Options
Student is unable to read standard textbook	Obtain a digital copy of the textbook to be used with a text to speech tool or a scan and read system	Bookshare <a href="http://www.bookshare.org">http://www.bookshare.org</a>
	Scan and read systems integrate the process of scanning a document or book, converting the printed text into a digital format, and then reading the text with a high quality digital voice	Kurzweil 3000 <a href="http://kurzweiledu.com/products_k3000win.asp">http://kurzweiledu.com/products_k3000win.asp</a>
	Provide text to speech supports	Snap and Read <a href="http://www.donjohnston.com/products/snap-read/index.html">http://www.donjohnston.com/products/snap-read/index.html</a>  Natural Reader <a href="http://www.naturalreaders.com/">http://www.naturalreaders.com/</a>
	Provide students with tools to summarize complex texts in order to	Text Compactor <a href="http://www.textcompactor.com">http://www.textcompactor.com</a>

	extract the essential meaning	
	Provide digital tiered reading materials as an alternative to the printed textbook	StarChild <a href="http://starchild.gsfc.nasa.gov/docs/StarChild/StarChild.html">http://starchild.gsfc.nasa.gov/docs/StarChild/StarChild.html</a>
		The Brain: From Top to Bottom <a href="http://the.brain.mcgill.ca/">http://the.brain.mcgill.ca/</a>
	Convert Wikipedia text to Simple English	Wikipedia: Bear <a href="http://en.wikipedia.org/wiki/Bear">http://en.wikipedia.org/wiki/Bear</a> Simple English Wikipedia: Bear <a href="http://simple.wikipedia.org/wiki/Bear">http://simple.wikipedia.org/wiki/Bear</a>
	In Science, use simulations and virtual manipulatives for students who cannot manipulate ordinary lab equipment	Science Interactive (Grad 3 -6) <a href="http://www.uen.org/3-6interactives/science.shtml">http://www.uen.org/3-6interactives/science.shtml</a> Science Interactives (Grades 7-12) <a href="http://www.uen.org/7-12interactives/science.shtml">http://www.uen.org/7-12interactives/science.shtml</a>

## Strategies: Comprehension

Instructional Challenge	Strategy	Technology Options
<p>Low reading skills limit access to content knowledge</p>	<p>Provide digital tiered reading materials to enable students to select the most appropriate challenge levels</p>	<p>NewsELA  <a href="http://www.newsela.com">http://www.newsela.com</a></p> <p>TweenTribune (free)  <a href="http://www.tweentribune.com">http://www.tweentribune.com</a></p> <p>Breaking News English (ESL users)  <a href="https://breakingnewsenglish.com/">https://breakingnewsenglish.com/</a></p>
<p>Students have difficulty understanding what they have read</p>	<p>Use graphic organizers as a pre-reading, during reading, or post reading strategy</p>	<p>Cmap  <a href="http://cmap.ihmc.us/">http://cmap.ihmc.us/</a></p> <p>Graphic Organizers  <a href="http://www.eduplace.com/graphicorganizer/">http://www.eduplace.com/graphicorganizer/</a></p>
	<p>Use commercially available study guides that provide information and resources that help readers</p>	<p>Cliffnotes  <a href="http://www.cliffsnotes.com">http://www.cliffsnotes.com</a></p> <p>SparkNotes (summary of books)  <a href="http://www.sparknotes.com">http://www.sparknotes.com</a></p> <p>NovelGuide  <a href="http://www.novelguide.com">http://www.novelguide.com</a></p> <p>Free Book Notes</p>

	comprehend what they are reading	<a href="http://www.freebooknotes.com">http://www.freebooknotes.com</a> Pink Monkey <a href="http://www.pinkmonkey.com">http://www.pinkmonkey.com</a>
Students have difficulty finding independent reading materials	Provide access to bilingual and multimedia story books	BookBox <a href="http://www.bookbox.com/">http://www.bookbox.com/</a> Story Online (free books, hear and see text) <a href="http://www.storylineonline.net/">http://www.storylineonline.net/</a>



## Strategies: Computational Support

Instructional Challenge	Strategy	Technology Options
Students struggle with how to solve a specific math problem	Provide access to online math instructional resources	WebMath <a href="http://www.webmath.com">http://www.webmath.com</a>  Khan Academy <a href="http://www.khanacademy.org">http://www.khanacademy.org</a>  Math Forum <a href="http://mathforum.org/">http://mathforum.org/</a>
Students are unable to complete calculations mentally	Provide access to a calculator or to free online calculators	Google Calculator <a href="http://www.google.com/help/features.html">http://www.google.com/help/features.html</a>  Wolfram Alpha <a href="http://www.wolframalpha.com/">http://www.wolframalpha.com/</a>
Students struggle with problems that involve converting data from one unit of analysis to another (ie. Temperature, money).	Provide access to specialized tools that convert data from one unit of analysis to another	Convert-Me <a href="http://www.convert-me.com/en/">http://www.convert-me.com/en/</a>  Google Currency Converter <a href="http://www.google.com/finance/">http://www.google.com/finance/</a>

		convertor
Students struggle to understand a problem and how to go about solving it.	Teach students how to solve math problems by using spreadsheets to create formulas. This encourages the development of conceptual understanding but relies on the computational power of the computer to do the calculation	<p>Spreadsheets in Education  <a href="http://sunsite.univie.ac.at/spreadsite/">http://sunsite.univie.ac.at/spreadsite/</a></p> <p>Tutorials in Open Office  <a href="http://www.tutorialsforopenoffice.org/tutorial/Spreadsheet_Math.html">http://www.tutorialsforopenoffice.org/tutorial/Spreadsheet_Math.html</a></p> <p>Spreadsheets: A Dynamic Path for Understanding Math  <a href="http://mathcats.com/spreadsheets/">http://mathcats.com/spreadsheets/</a></p> <p>What If Math  <a href="http://whatifmath.org">http://whatifmath.org</a></p> <p>Spreadsheet Converter  <a href="http://wwwspreadsheetconverter.com/">http://wwwspreadsheetconverter.com/</a></p>

## Strategies: Problem Solving

Instructional Challenge	Strategy	Technology Options
<p>Help Students understand the relevance and importance of math</p>	<p>Build math enrichment activities into daily life</p>	<p>Literacy Center Education Network  <a href="http://www.literacycenter.net/lessonview_en.php">http://www.literacycenter.net/lessonview_en.php</a></p> <p>Figure This! Math Challenges For Families  <a href="http://www.figurethis.org/challenges/math_index.htm">http://www.figurethis.org/challenges/math_index.htm</a></p> <p>Illuminations: Activities  <a href="http://illuminations.nctm.org/ActivitySearch.aspx">http://illuminations.nctm.org/ActivitySearch.aspx</a></p> <p>Nrich  <a href="http://nrich.maths.org/public/">http://nrich.maths.org/public/</a></p>
<p>Students are having difficulty understanding the concepts behind data collection, analysis and statistics</p>	<p>Introduce easy-to-use tools that allow students to enter data and graph results</p>	<p>InspireData  <a href="http://www.inspiration.com/">http://www.inspiration.com/</a></p> <p>InspireData</p> <p>Max's Toolbox  <a href="http://shop.fablevisionlearning.com/">http://shop.fablevisionlearning.com/</a></p>

		maxs-toolbox/
Students struggle to understand probability	Provide access to interactive simulations that illustrate chance and how probability is calculated	<p>Probability Activities</p> <p><a href="http://www.shodor.org/interactivate/">http://www.shodor.org/interactivate/</a></p> <p>activities/</p> <p>Probability Simulations</p> <p><a href="http://www.mathonline.co.uk/nonmembers/resource/prob/">http://www.mathonline.co.uk/nonmembers/resource/prob/</a></p> <p>Probability</p> <p><a href="http://www.interactivemaths.Net/index.php?q=category/1/75">http://www.interactivemaths.Net/index.php?q=category/1/75</a></p>
Students struggle with data analysis procedures	Provide how-to instructional videos and data analysis calculators that assist in the calculation and data interpretation tasks	<p>T-test Calculator</p> <p><a href="http://www.graphpad.com/quickcalcs/ttest1.cfm">http://www.graphpad.com/quickcalcs/ttest1.cfm</a></p> <p>Using the Normal Curve to Establish Confidence Intervals</p> <p><a href="Http://www.youtube.com/Watch?v=ovx-1uBpbyo">Http://www.youtube.com/Watch?v=ovx-1uBpbyo</a></p>