**Assistive Technology State Task Group**

**Utilizing the Principles of Universal Design for Learning**

**May 2020**

Developed by the Kentucky Special Education Cooperatives

**Logos of Kentucky Educational Cooperatives
**

**Potential Technologies Supporting UDL/SAMR Integration**

(Bauder, Cooper & Simmons, 2020)

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| **UDL Principle** | **SAMR Scaffold** | **Strategies** | **Supportive Technologies** |
| Multiple means of Representation | Substitution | ● Use text-to-speech programs, large print books or eBooks to modify texts and audiobooks.  ● Provide access to audiobooks with paired texts.  ● Use podcasts (audio files, MP3 files). | ●  [Learning Ally](https://learningally.org)  ●  [Bookshare](https://www.bookshare.org/cms/)  ●  [Google Docs](https://www.google.com/docs/about/)  ● [Google Slides](https://www.google.com/docs/about/)  ● [Podcasts: Content](https://apps.apple.com/us/app/apple-podcasts/id525463029)  ● [Acquisition Podcast (CAP)](https://apps.apple.com/us/app/apple-podcasts/id525463029) |
|  | Augmentation | ● Use digital text/textbooks featuring defining words, personalizing format to be more user-friendly.  ● Highlight & copy/paste key points of text.  ● Provide simplified narration-based animation program.  ● Create a complete animated, narrated video. | ● [Google Docs with Read Write Add-ons](https://www.apple.com/apple-books/)  ● [Adobe Spark Video app](https://spark.adobe.com/make/video-maker/)  ● [Amazon Kindle](https://www.amazon.com/Kindle-eBooks/b?ie=UTF8&node=154606011)  ● [Apple Books](https://www.apple.com/apple-books/) |
|  | Modification | ● Have students review online materials such as videos at home so class time can be used for hands-on activities.  ● Use an iPad as a recordable whiteboard.  ● Create dynamic interactive lessons, activities, assessments, and tutorials. | ● [Educreations](https://www.educreations.com)  ●  [Explain Everything](https://explaineverything.com)  ● [Thinglink](https://www.thinglink.com)  ●  [Nearpod](http://nearpod.com) |
|  | Redefinition | ● Collaboration among peers.  ● Share ideas and discuss key concepts of lessons.  ● Collate ideas and collaborate online.  ● Create a customized comic.  ● Create a custom drawing and then animate it. | ● [Google Suite](https://www.google.com/docs/about/)  ● [Google Classroom](https://classroom.google.com)  ● [Padlet](https://padlet.com)  ● [Comic Life](https://plasq.com)  ● [Animation Desk](https://play.google.com/store/apps/details?id=com.kdanmobile.android.animationdeskcloud&hl=en_US) |
| **UDL Principle** | **SAMR Scaffold** | **Strategies** | **Supportive Technologies** |
| Multiple Means of Engagement | Substitution | ● The technology used must assist in student engagement.  ● Students take a quiz using a Google Form instead of using pencil and paper.  ● Use alerts and reminders to complete tasks. | ● Tablets & apps  ● [Apple Watch](https://www.apple.com/shop/buy-watch/apple-watch)  ● [Chromebook](https://www.google.com/chromebook/)  ●  [Google Forms](https://www.google.com/docs/about/) |
|  | Augmentation | ● Have students explore other languages using a text and audio translation tool.  ● For math, have students measure an environment using augmented reality apps.  ● Collaboration | ● [Google Translate](https://translate.google.com)  ● [AR Ruler](https://play.google.com/store/apps/details?id=com.grymala.aruler&hl=en_US)  ● [AR Dragon](https://apps.apple.com/us/app/ar-dragon/id1270046606) |
|  | Modification | ● Create a video on classroom topic.  ● Pair recorded audio with a photo.  ● Use QR Codes to enhance a scavenger hunt digitally. | ● [PowerPoint](https://office.live.com/start/powerpoint.aspx)  ● [Prezi](https://prezi.com)  ● [iMovie](https://www.apple.com/imovie/)  ● [Camtasia](https://www.techsmith.com/video-editor.html)  ● [Speech Journal](https://apps.apple.com/us/app/speech-journal/id436945985)  ● [QR Code Creator](https://www.qr-code-generator.com) |
|  | Redefinition | ● A story could be changed into a picture book, a slideshow or even a movie.  ● Experience otherwise inaccessible environments using VR and AR apps.  ● Create geotagged works of art drawn or painted on walls. | ● [Book Creator](https://bookcreator.com)  ● [Flipboard](https://flipboard.com)  ● [VoiceThread](https://voicethread.com)  ● VR apps  ● AR apps, such as [Metaverse](https://studio.gometa.io/discover/me)  ● [Just A Line](https://experiments.withgoogle.com/justaline)  ● [Google Lens](https://lens.google.com)  ● [WallaMe](https://edshelf.com/tool/wallame/)  ●  [Google Expeditions](https://edu.google.com/products/vr-ar/expeditions/) |
| **UDL Principle** | **SAMR Scaffold** | **Strategies** | **Supportive Technologies** |
| Multiple Means of Expression | Substitution | ● Have students record themselves as they read.  ● Apply spelling, grammar, punctuation, conventions, rules in writing. | ● [Google Docs](https://www.google.com/docs/about/)   * [Note Taker HD](https://apps.apple.com/us/app/note-taker-hd/id366572045)   ● [Grammarly](https://www.grammarly.com)  ●  [Read & Write](https://chrome.google.com/webstore/detail/readwrite-for-google-chro/inoeonmfapjbbkmdafoankkfajkcphgd)  ●  [Fluency Tutor](https://www.texthelp.com/en-us/products/fluencytutor/)  ● [Snapverter](https://www.texthelp.com/en-gb/products/snapverter/) |
|  | Augmented | ● Have students answer questions as part of the video.  ● Complete math assignments.  ● Increase vocabulary skills with an online graphical dictionary.  ● Record narration to a book to tell a story. | ● [Edpuzzle](https://edpuzzle.com/)  ● Use digital calculators or spreadsheets to solve a problem.[2]  ● [EquatIO](https://www.texthelp.com/en-us/products/equatio/)  ● [Virtual Manipulatives](https://glencoe.mheducation.com/sites/0078799147/student_view0/virtual_manipulatives.html) (online program)  ● [Visuwords](https://visuwords.com/)  ● [Bunsella Bedtimes Story](https://edshelf.com/tool/bunsella-bedtimes-story/) |
|  | Modification | ● Caption video to improve listening skills/spelling skills.  ● Create digital stories.  ● Compile research using a bookmarking tool. | ● [YouTube captioning manager](https://support.google.com/youtube/answer/2734796?hl=en)  ● [Little Bird Tales](https://littlebirdtales.com/)  ● [Diigo](https://www.diigo.com/)  ● [Animoto](https://animoto.com/)  ●  [Story Creator](https://apps.apple.com/us/app/story-creator-easy-story-book-maker-for-kids/id545369477)  ● [PuppetPals](https://apps.apple.com/us/app/puppet-pals-hd/id342076546) |
|  | Redefinition | ● Create an augmented reality story.  ● Create a virtual reality for students to explore different realities and alternative learning experiences.  ● Create scenarios in response to classroom topics.  ● Build a virtual tour.  ● Create timelines.  ● Create a photosphere. | ● [Google Earth TourBuilder](https://tourbuilder.withgoogle.com/)  ● [SmartDraw](https://www.smartdraw.com/)  ● [TimeToast](https://www.timetoast.com/)  ● [Google Streets](https://www.google.com/streetview/) |