

Google Implementation – K-12

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Abstract

The ICCSD has begun moving toward more cloud-based resources, in terms of digital storage and applications. Currently, all district staff and students have accounts in our district's Google Apps for Education (GAFE) domain. In the last year, a number of staff have initiated Google applications for their productivity and collaboration, and have begun implementing Google with their students as an instructional resource and workflow solution in their classrooms.

The purpose of this document is to serve as a guide in implementing Google across the district at each grade level. It offers a scope and sequence to articulate when various Google skills and strategies are to be introduced.

Project Description

Five key areas are addressed in this guide: **Google Drive** (storage); **Google Docs, Sheets, and Slides** (productivity applications); **Google Chrome** (browser); **Google Classroom** (workflow); and general **Technology Literacy** skills.

Specific learner **objectives** are identified. The **grade level** at which the skill or strategy targeted in the objective is also identified. Ideas for **lessons** or **activities** for introducing or practicing the skills are offered. Relevant **resources, tools, handouts, or links** are suggested, as are options for **assessment** of the objective. Finally, the relevant **Common Core State Standard** (CCSS) citation is noted.

Topic: Google Drive

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW understand the purpose and uses for Google Drive.	3-4	<ul style="list-style-type: none"> ● Watch introductory video (ideas to the right) ● Group brainstorm and discussion with the following questions: <ul style="list-style-type: none"> ○ Why do we use Google Drive? ○ How do we save work with Google Drive? ○ How is Google Drive different from saving work on your desktop/laptop? ○ What are the advantages of Google Drive? 	<p><i>Google Drive: One Safe Place for All Your Stuff</i> Video (1:16) https://youtu.be/02DV21OtV3c?list=PL7s5DxOdh7PRYkJjB1rddyqY-54Yn_R5</p> <p><i>Going Google with Google Drive</i> Video (1:38) https://youtu.be/3Y4bh1qwTJw?list=PL9HrZY6iC2z1C-Dh23KRJFb4hdFcYwPzJ</p> <p><i>Meet the New Google Drive</i> Video (1:41) https://youtu.be/jWvKAYKlnnM</p>	Use effectively in relevant projects	21.K–2.TL.6
TLW access and sign in to Google Drive.	3-4	<ul style="list-style-type: none"> ● Take students to a lab and have all students sign in and out of Google Drive 			
TLW understand Google Drive views.	3-4	<ul style="list-style-type: none"> ● Take students to lab and ask them to try to figure out where to find “My Drive” and “Shared with Me” ● Discuss results 	http://www.shakeuplearning.com/blog/a-new-google-drive-cheat-sheet		
TLW save existing files and folders in Google Drive.	3-4 (maybe 5-6)	<ul style="list-style-type: none"> ● Students create and save “Sample1” Word document to desktop <ul style="list-style-type: none"> ○ Students drag and drop file into Google Drive ● Students create and save “Sample2” Word document to desktop 	Upload files and folder https://support.google.com/drive/answer/2424368?hl=en		

		<ul style="list-style-type: none"> ○ Students upload file into Google Drive. ● Remember to emphasize that Google Drive can store ANY file, not just Google files. 			
TLW create files and folders in Google Drive.	3-4	<ul style="list-style-type: none"> ● Take students to lab and have them create and name one or more of the following: <ul style="list-style-type: none"> ○ Google Doc ○ Google Spreadsheet ○ Google Slide ○ New Folder 	http://www.shakeuplearning.com/blog/a-new-google-drive-cheat-sheet		
TLW understand and utilize sharing options.	3-4	<ul style="list-style-type: none"> ● Take students to lab and have them <ul style="list-style-type: none"> ○ Share a file ○ Share a folder 	<p>How to Share (Text Version) https://support.google.com/drive/answer/2494822?hl=en</p> <p>Video: <i>Share with others in Drive, Docs, Sheets, and Slides</i> (2:32) https://youtu.be/25CtYkqamIA</p> <p>The Guide to Google Drive Sharing http://www.shakeuplearning.com/blog/the-guide-to-google-drive-sharing</p>		
TLW organize Google Drive using folders.	5-6	<ul style="list-style-type: none"> ● Take students to lab and have them <ul style="list-style-type: none"> ○ Create a folder ○ Move a folder ○ Delete a folder 	<p>How to create, move or delete a folder https://support.google.com/drive/answer/2375091?hl=en</p>		
TLW locate files using search.	5-6	<ul style="list-style-type: none"> ● Teacher creates and shares a new file with students ● Have students use the “search” feature to find the new file 	<p>Google Drive Search https://support.google.com/drive/answer/2375114?hl=en</p>		

		*Remember: Use the dropdown arrow for more options!			
TLW save a "Shared with Me" file to My Drive.	3-4	<ul style="list-style-type: none"> ● In a lab, have students practice: <ul style="list-style-type: none"> ○ finding files in "Shared with Me" folder ○ Save a "Shared with Me" file to their personal Google Drive 	Shared with Me and adding files to My Drive https://support.google.com/drive/answer/2375057?hl=en		
TLW download files from drive.	7-8	<ul style="list-style-type: none"> ● Teacher creates a Word Document that students must alter (for example, create a word document with a table that students have to fill out) <ul style="list-style-type: none"> ○ Share file with students ○ Have students move the file into their Google Drive ○ Have students download the file, modify the file, and then save it to their Google Drive <p>*Make sure students understand that downloading files is the only way to modify files that aren't created in the Google Suite, and that they have to save and upload those files AGAIN after modifying them.</p>	Download a file https://support.google.com/drive/answer/2424368?hl=en		
TLW understand how to safely manage multiple Google Accounts.	7-8	<ul style="list-style-type: none"> ● Students discuss pros/cons of options for multiple Google accounts including: <ul style="list-style-type: none"> ○ Keeping separate accounts for school and personal files/email etc. ○ Forwarding e-mail from one account to another account 	How to forward Google emails to a different account: https://support.google.com/mail/answer/10957?hl=en How to sign into and use two Google accounts simultaneously:		

			https://support.google.com/mail/answer/1721977?hl=en		
TLW download and install Google Drive onto their computer.	9	<ul style="list-style-type: none"> ● Explain to students the benefits of working on Google Drive files offline then syncing them when connected to wifi (very important for 1:1) <ul style="list-style-type: none"> ○ Students also need to understand that syncing might not occur right away 	<p>How to download Google Drive onto Desktop</p> <p>https://support.google.com/drive/answer/2374989?hl=en</p> <p>Syncing files and folders from Google Drive on desktop to internet</p> <p>https://support.google.com/drive/answer/2374992?hl=en</p>		

Topic: Google Docs, Sheets, Slides

Similar to Microsoft Word's Office Suite of productivity tools, Google Docs, Sheets, and Slides can serve as a cloud-based alternative to Word, Excel, and PowerPoint and provide opportunities for creation, collaboration, and scholarship. These objectives are designed to enable learners to familiarize themselves with the basics of each of the three Google services.

[Google Docs resources, handouts, and links are located at the Google Docs Help Center](#)

[Google Sheets resources, handouts, and links are located at the Google Sheets Help Center](#)

[Google Slides resources, handouts, and links are located at the Google Slides Help Center](#)

Google Docs

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW identify the Google Doc icon.	K *Focus: Teachers model these skills K-2	Mulitple icons on SMARTBoard, have them circle the correct Google Doc icon	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW identify the purpose of a Google Doc.	K *Focus: Teachers model these skills K-2	Writing on paper? Other options? Writing on a computer	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW differentiate where to type and format in a Google Doc.	K *Focus: Teachers model these skills K-2	Have students point out where to type or format while Google Doc open on Smartboard	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW undo mistakes by using the undo arrow.	K *Focus: Teachers	Erasers to fix mistakes on paper. How to quickly fix in a Google Doc	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to		21.K–2.TL.6

	model these skills K-2		website. Students collaborate on document.		
TLW rename the Google Doc.	1st/2nd *Focus: Teachers model these skills K-2	Write names on paper. How to write name on our Google Docs.	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW align text.	1st/2nd *Focus: Teachers model these skills K-2	Writing on paper, we want words in different places. Align in Google Doc is the same thing	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW bold, italicize and underline text.	1st/2nd *Focus: Teachers model these skills K-2	In books, authors use different text to draw attention. How to do in Google Doc?	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW explain the purpose of red squiggly lines under words.	1st/2nd *Focus: Teachers model these skills K-2	Try our best to spell words. How does teacher or peers let you know it is wrong? How do we know in Google Doc?	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW insert an image from the web search (creative commons).	1st/2nd *Focus: Teachers model these skills K-2	Show some picture books. Point out how pictures help our writing. How to insert pictures in Google Doc.	Teacher creates a document and sets sharing settings to "anyone with the link can view" - links document to website. Students collaborate on document.		21.K–2.TL.6
TLW right click and fix red squiggly lines.	3rd/4th	Erase incorrect words on paper. How to fix on Google Doc?			21.3–5.TL.6

TLW change font color, size and type.	3rd/4th	Crayons, markers, colored pencils to change our writing on paper. How to do it on Google Doc?			21.3–5.TL.6
TLW copy and paste text.	3rd/4th	Writing words over and over? Quickly do this on Google Doc?			21.3–5.TL.6
TLW upload and insert an image from computer.	3rd/4th	Show some picture books. Point out how pictures help our writing. How to insert pictures in Google Doc.			21.3–5.TL.6
TLW add bullets and number lists.	3rd/4th	Creating lists (Shopping, to do, etc). How to do in a Google Doc?			21.3–5.TL.6
TLW share a file with a teacher or classmate.	5th/6th	Handing in a paper to teacher in class? How to do it in a Google Doc?			21.3–5.TL.6
TLW leave a comment on a shared file.	5th/6th	Teacher give oral feedback. How you can leave feedback or teacher leave feedback on Google Doc			21.3–5.TL.6
TLW wrap text next to an image.	5th/6th	Easy to glue a picture above our writing. How to make text go where we want with a picture on Google Doc			21.3–5.TL.6
TLW customize margins.	5th/6th	Red lines on paper. Same thing with margins in Google Doc			21.3–5.TL.6
TLW download as ...	5th/6th	Some people don't have Google Docs. Download as a word or PDF?			21.3–5.TL.6
TLW print.	5th/6th				21.3–5.TL.6
TLW add Easy Bib add on and use to create bibliography.	5th/6th	Citing our sources to give credit. How to do this in a Google Doc with Easy Bib add on			21.3–5.TL.6
TLW use the research and define tools.	5th/6th	Dictionary or encyclopedia in library. This is already part of Google Doc	Google Research Tool How-To Video Tutorial: Google Research Tool		21.3–5.TL.6

			<u>Google Scholar (a google search engine dedicated to articles and case law; includes places to file in a library, keep citations, etc...)</u>		
TLW insert special characters and symbols.	5th/6th	Keyboards have some symbols. How to add in other special characters?			21.3–5.TL.6
TLW locate and use revision history.	5th/6th	Model introductory how-to in front of class on SmartBoard/Projector and allow students to follow along in Doc : “Click on File>See Revision History”	<u>Tracking Changes Information Document</u>		21.3–5.TL.6
TLW comment in Docs.	7th/8th	Open a new document and begin typing on the document. Students share their document with a partner and allow them to make a comment on their document. Students highlight a specific section to comment. Alternatively, students can also comment without highlighting any specific piece of text in the document to display how overall comments may be made.	<u>Video how-to: How to Comment in Google Drive</u> <u>Google Support: Adding Comments</u>		
TLW suggest edits in Docs.	7th/8th	Open a new document and begin typing on the document. Students share their document with a partner and allow them to make suggest an edit on the document. Student partners, while peer editing, should accept or reject suggested edits to understand what they may see when teachers (or peers) make edits to the document.	<u>Video how-to: What is “suggesting editing?” and intro information</u> <u>Modesto Schools explains and displays “suggested editing”</u>		21.6–8.TL.2 21.6–8.TL.6
TLW add text boxes in Docs.	7th/8th	Text boxes are a skill that may be used when creating highly edited/formatted documents. While this is currently easier in Microsoft Word, there is a process for entering text boxes in	<u>Docs Textbox How-To</u>		21.6–8.TL.6

		Google Docs (a single-cell table is not included here, but may be the best way to do so, but lacks the ability to move around freely). Therefore, the following activity may only be useful for those learners who have the need, and may not be necessary for a full group (at instructor's discretion).			
TLW use the Research function in Docs to insert internet-based auto-cited information.	7th/8th	<p>This can be a very helpful tool when writing research papers or creating slideshows, especially those being made available to the public. Students should be prompted to do each of the following in an instructor-led session.</p> <ol style="list-style-type: none"> 1. Open an existing or new document (Doc or Slide) 2. Click on "Tools" in the document toolbar 3. Click on "Research" 4. Search in google search box for information/images of interest and insert them in the document by dragging into document body (an auto-cite footer will appear with the number and information for each cited piece of evidence) 	Video Tutorial: Google Research Tool Google Scholar (a google search engine dedicated to articles and case law; includes places to file in a library, keep citations, etc...)		

Google Sheets

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW identify the Google Sheet icon.	K *Focus: Teachers model these skills K-2	Multitple icons on SMARTBoard, have them circle the correct Google Sheet icon			21.K–2.TL.6
TLW identify the purpose of a Google Sheet.	K *Focus: Teachers model these skills K-2	Compare to a hundreds chart and organizing numbers. Sheets helps us organize numbers (data)			21.K–2.TL.6
TLW differentiate where to type and format in a Google Sheet.	K *Focus: Teachers model these skills K-2	Have students point out where to type or format while Google Sheet open on Smartboard			21.K–2.TL.6
TLW undo mistakes by using the undo arrow.	K *Focus: Teachers model these skills K-2	Erasers to fix mistakes on paper. How to quickly fix in a Google Sheet			21.K–2.TL.6
TLW rename the Google Sheet.	1st/2nd *Focus: Teachers model these skills K-2	Write names on paper. How to write name on our Google Sheet.			21.K–2.TL.6
TLW differentiate between a	1st/2nd *Focus:	Compare to a hundreds chart. 10s column, odd and even column.			21.K–2.TL.6

column and a row.	Teachers model these skills K-2	Counting by 1's we go across the row. Same concept in a Google Sheet			
TLW identify a cell using letter and number combinations.	1st/2nd *Focus: Teachers model these skills K-2	Make a connection to a bingo game. Could also make a connection to plotting points on a map for social studies			21.K–2.TL.6
TLW align text.	1st/2nd *Focus: Teachers model these skills K-2	Writing on paper, we want words in different places. Align in Google Sheet is the same thing			21.K–2.TL.6
TLW bold, italicize and underline text.	1st/2nd *Focus: Teachers model these skills K-2	In books, authors use different text to draw attention. How to do in Google Sheet?			21.K–2.TL.6
TLW change font color, size and type.	3rd/4th	Crayons, markers, colored pencils to change our writing on paper. How to do it on Google Sheet?			21.3–5.TL.6
TLW copy and paste text.	3rd/4th	Writing words over and over? Quickly do this on Google Sheets?			21.3–5.TL.6
TLW adjust column width.	3rd/4th	Sometimes if we run out of space to write on paper, we can tape or glue more paper to add space. On Google Sheets, we can magically stretch the "paper" to make more room			21.3–5.TL.6
TLW adjust row height.	3rd/4th	Sometimes if we run out of space to write on paper, we can tape or glue more paper to add space. On Google			21.3–5.TL.6

		Sheets, we can magically stretch the "paper" to make more room			
TLW fill a cells background color.	3rd/4th	With construction paper, we can change the "background" color we want. You can do the same thing in Google Sheets by changing the background color. You could have them make patterns by changing cell colors			21.3–5.TL.6
TLW merge multiple cells.	3rd/4th	Compare to run on sentences. We like to combine to make one. Same thing by merging cells. Taking multiple cells and magically gluing them together into one.			21.3–5.TL.6
TLW add/remove borders to cells.	3rd/4th	What do we hang pictures in at our houses or around school? Frames help us outline our pictures and make them more fun to look at. Same thing with adding or removing borders to cells in sheets.			21.3–5.TL.6
TLW share a file with a teacher or classmate.	5th/6th	Handing in a paper to teacher in class? How to do it in a Google Sheets?			21.3–5.TL.6
TLW leave a comment on a shared file.	5th/6th	Teacher give oral feedback. How you can leave feedback or teacher leave feedback on Google Sheets			21.3–5.TL.6
TLW wrap text in a cell.	5th/6th	What happens if we write on paper and get to the edge of the paper? We go down to the next line and keep writing. Same concept with wrapping text in a cell. Makes it all fit nicely.			21.3–5.TL.6
TLW apply filters to sort data.	5th/6th	Sort your students by their birthday months. Sort tallest to shortest. This is the same concept as applying a filter to data in cells.			21.3–5.TL.6

TLW freeze columns and rows.	5th/6th	Model how to freeze columns and rows so that when scrolling through data, you can keep your header rows viewable			21.3–5.TL.6
TLW use simple functions like sum, avg, etc.	5th/6th	Calculators can help solve math. Sheets has a magic built in calculator.			21.3–5.TL.6
TLW download as ...	5th/6th	Some people don't have Google Sheets. Download as an Excel or PDF?			21.3–5.TL.6
TLW print.	5th/6th				21.3–5.TL.6
TLW insert charts to visualize data.	5th/6th	Compare to charts or graphs in social studies or math textbooks. Visual data is more fun to look at.			21.3–5.TL.6
TLW add new sheets, rename and move them.	5th/6th	Sometimes one piece of paper isn't enough for a story we write. We add new pages. Something can be done in Sheets. Also, we can drag them around to order them and rename them too.			21.3–5.TL.6
TLW insert special characters and symbols.	5th/6th	Keyboards have some symbols. How to add in other special characters?			21.3–5.TL.6
TLW locate and use revision history.	5th/6th		<u>Tracking Changes Information Document</u>		21.3–5.TL.6

Google Slides

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW identify the Google Slides icon.	K *Focus: Teachers model these skills K-2	Multitple icons on SMARTBoard, have them circle the correct Google Slides icon			21.K–2.TL.6
TLW identify the purpose of a Google Slides.	K *Focus: Teachers model these skills K-2	Compare to our SMARTBoards. Use to present information in a fun way.			21.K–2.TL.6
TLW differentiate where to type and format in a Google Slides.	K *Focus: Teachers model these skills K-2	Have students point out where to type or format while Google Slides open on Smartboard			21.K–2.TL.6
TLW differentiate between the slide sorter and main slide.	K *Focus: Teachers model these skills K-2	Compare to a book. Many pages that you can flip through, but you only work (read) one at a time. Slide sort likes pages, while main slide is like single page to work on			21.K–2.TL.6
TLW put presentation into present mode and as well as exit present mode.	K *Focus: Teachers model these skills K-2	Compare to our SMARTBoards and how we can go back and forth between edit and present mode			21.K–2.TL.6

TLW undo mistakes by using the undo arrow.	K *Focus: Teachers model these skills K-2	Erasers to fix mistakes on paper. How to quickly fix in a Google Slide			21.K– 2.TL.6
TLW rename the Google Slide.	1st/2nd *Focus: Teachers model these skills K-2	Write names on paper. How to write name on our Google Slide.			21.K– 2.TL.6
TLW add a slide to the presentation by selecting the desired layout.	1st/2nd *Focus: Teachers model these skills K-2	When writing or drawing on paper, we can add more pages by getting more paper. In a Google Slide, we have to click the "plus" sign to virtually add more paper to our presentation.			21.K– 2.TL.6
TLW add text into a text box.	1st/2nd *Focus: Teachers model these skills K-2	Writing our name on a paper goes next to the "name" spot on the paper. If we want to put text in a specific place on a Google Slide, we use a text box. Model how to add a text box and type			21.K– 2.TL.6
TLW rearrange slides in the slide sorter by dragging them up or down.	1st/2nd *Focus: Teachers model these skills K-2	Stories are put into a certain order (sequencing). If we want to move pages around on Google Slides, we can click and drag them around.			21.K– 2.TL.6
TLW align text.	1st/2nd *Focus: Teachers model these skills K-2	Writing on paper, we want words in different places. Align in Google Slides is the same thing			21.K– 2.TL.6

TLW bold, italicize and underline text.	1st/2nd *Focus: Teachers model these skills K-2	In books, authors use different text to draw attention. How to do in Google Slide?			21.K– 2.TL.6
TLW explain the purpose of red squiggly lines under words.	1st/2nd *Focus: Teachers model these skills K-2	Try our best to spell words. How does teacher or peers let you know it is wrong? How do we know in Google Slide?			21.K– 2.TL.6
TLW insert an image from the web search (creative commons).	3rd/4th	Show some picture books. Point out how pictures help our writing. How to insert pictures in Google Slide.			21.3– 5.TL.6
TLW right click and fix red squiggly lines.	3rd/4th	Erase incorrect words on paper. How to fix on Google Slides?			21.3– 5.TL.6
TLW change font color, size and type.	3rd/4th	Crayons, markers, colored pencils to change our writing on paper. How to do it on Google Slide?			21.3– 5.TL.6
TLW copy and paste text.	3rd/4th	Writing words over and over? Quickly do this on Google Slides?			21.3– 5.TL.6
TLW upload and insert an image from computer.	3rd/4th	Show some picture books. Point out how pictures help our writing. How to insert pictures in Google Slides.			21.3– 5.TL.6
TLW add bullets and number lists.	3rd/4th	Creating lists (Shopping, to do, etc). How to do in a Google Slides?			21.3– 5.TL.6
TLW change the theme of the presentation.	3rd/4th	Each of us have our own styles. Not everyone wears the same clothes. How can we add our own styles to our Google Slides? Change the theme			21.3– 5.TL.6

TLW duplicate a slide.	3rd/4th	We can use a copy machine to make multiple copies of something. We can easily "duplicate" slides in our presentation			21.3–5.TL.6
TLW insert shapes and lines into presentation.	3rd/4th	Just like on the SMARTBoard, we can add in shapes and lines. How do we do this in Google Slides?			21.3–5.TL.6
TLW insert hyperlinks.	3rd/4th	When we search on Google, we click on "hyperlinks" to navigate to different sites. We can add these in our presentations to provide the viewer with more information			21.3–5.TL.6
TLW share a file with a teacher or classmate.	5th/6th	Handing in a paper to teacher in class? How to do it in a Google Slides?			21.3–5.TL.6
TLW leave a comment on a shared file.	5th/6th	Teacher give oral feedback. How you can leave feedback or teacher leave feedback on Google Slides			21.3–5.TL.6
TLW download as ...	5th/6th	Some people don't have Google Slides. Download as a word or PDF?			21.3–5.TL.6
TLW print.	5th/6th				21.3–5.TL.6
TLW use the research and define tools.	5th/6th	Dictionary or encyclopedia in library. This is already part of Google Slides			21.3–5.TL.6
TLW insert special characters and symbols.	5th/6th	Keyboards have some symbols. How to add in other special characters?			21.3–5.TL.6
TLW add slide animations.	5th/6th	Make a connection to animations (you could search for "animated gif" online and show them) Explain that you can apply animations to slides			21.3–5.TL.6

TLW insert videos using video search or YouTube URL.	5th/6th	How many of you use YouTube? Probably all of them. We can add those videos into our Slides.			21.3–5.TL.6
TLW insert word art.	5th/6th	Ordinary text can be boring. How can we add text to grab the audience's attention better? Add in word art			21.3–5.TL.6
TLW change the weight and appearance of shapes and lines.	5th/6th	Compare to the SMARTBoard and being able to customize shapes and lines. Model how to do this in Google Slides			21.3–5.TL.6
TLW insert a table.	5th/6th	Make a comparison to math word problems that have tables of info. Model how we can add tables in Google Slides to present info			21.3–5.TL.6
TLW add speaker notes.	5th/6th	When giving a speech, we use index cards for what we want to say. We can add virtual index cards to our Google Slide presentations. Model how to add "speaker notes."			21.3–5.TL.6
TLW locate and use revision history.	5th/6th		<u>Tracking Changes Information Document</u>		21.3–5.TL.6

Summary – Highlights by Elementary Grade Level

Kindergarten	Grades 1-2	Grades 3-4	Grades 5-6
DOCS	DOCS	DOCS	DOCS
What is the icon	Review icon	Review renaming	Review font formatting
What is it used for	Review purpose	Review alignment	Review Image upload/insert
Where to format vs type	Review format vs type	Review bold, italics, underline	Review copy and paste
Undo Arrow	Rename file	Right click to fix squiggly lines	Share a file
	Left, center, right align	Change font type	Leave a comment
	Bold, italicize and underline	Change font color	Wrap text with images
	Red squiggly lines	Change font size	Leave a suggestion
	Insert image from web	Copy and pasting	Margins
		Upload/insert image	Download as certain type
		Add bullets/numbers	Printing
			EasyBib
			Research and define tool
			Insert special characters /symbols
SHEETS	SHEETS	SHEETS	SHEETS
What is the icon	Review icon	Review renaming	Review font formatting
What is it used for	Review purpose	Review alignment	Review copy and paste
Where to format vs type	Review format vs type	Review bold, italics	Share a file
Undo Arrow	Rename file	Change font type	Leave a comment
	Column vs. row	Change font color	Wrap text in cells
	Cells	Change font size	Leave a suggestion
	Left, center, right align	Copy and pasting	Apply filters
	Bold, italicize, underline	Change row height	Freeze columns and rows
		Change column width	Simple functions
		Fill cell with color	Download as certain type
		Merge cells	Printing
		Add/remove borders	Insert charts
			Add new sheets and rename them
			Insert special characters/symbols

SLIDES	SLIDES	SLIDES	SLIDES
What is the icon	Rename file	Right click to fix squiggly lines	Share a file
What is it used for	Add a slide, choose layout	Change font type	Leave a comment
Where to format vs type	Add text	Change font color	Leave a suggestion
Slide view vs. slide	Move slides around	Change font size	Download as certain type
Present button	Bold, italicize, underline	Copy and pasting	Printing
Undo Arrow	Red squiggly lines	Upload/insert image	Research and define tool
	Insert image from web	Add bullets/numbers	Slide animations
	Left, center, right align	Changing theme	Insert videos
		Duplicate slide	Insert word art
		Insert shapes/lines	Line weight/format for shapes and lines
		Insert hyperlinks	Insert a table
			Add speaker notes
			Insert special characters/symbols

Topic: Google Chrome

It is easy to assume that our students, as digital natives, need little to no instruction when it comes to using technology. However, we frequently find gaps in students' knowledge and skills which can put students at a disadvantage for learning. Although specific to Chrome, the majority of these skills apply to all web browsers and many to technology in general. The following skills should be taught explicitly to ensure that all students have a baseline of skills that will be required throughout their lifetime.

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW utilize basic navigational tools (back button, refresh, links).	1-2	Teacher modeling, student practice in context with curriculum. Match label to part of browser. Begin practice with school library website or teacher webpage.	Would be great if we had a video for this... Smart Notebook File (Chrome Labeling Activity)	Students independently navigate teacher chosen websites.	21.K–2.TL.3 21.K–2.TL.6
TLW identify key navigational tools in Google Chrome (settings menu, apps menu, omnibox, tabs).	3-4	Match the label to the part of the browser: SMART Board activity with drag/drop fill in the blank.	Chrome Tour Guide Smart Notebook File (Chrome Labeling Activity)	Students independently navigate and use Chrome for school and personal productivity. Students can assist others in troubleshooting issues with navigation.	21.3–5.TL.6
TLW utilize more than one tab.	3-4	Teacher modeling, student practice in context with curriculum. Discuss difference between new tab and new window. Combine and separate tabs.	Using Tabs	Students will effectively navigate multiple webpages at once when appropriate.	21.3–5.TL.6
TLW differentiate between a URL and search terms.	3-4	Discuss difference between a web address/URL (you already know where you are going) vs. a web search (you don't know the best website). Compare to shopping for milk at the grocery store	Keys to Search City How to Search - Ruff Ruffman Searching Quiz - Ruff Ruffman	Students will enter a URL of known websites when appropriate, and will use search	21.3–5.TL.6

		<p>vs. something you don't usually buy. Why would one approach to locating the item be better than the other?</p> <p>Extension: Search engines, search terms, authorship. Watch Ruff Ruffman video and students take quiz.</p>		box/search terms when appropriate.	
TLW create a personalized web environment by logging in to Chrome.	5-6	<p>Teacher modeling, student practice.</p> <p>Discuss difference between logging into Chrome and logging in to Google Apps.</p>	<p>Why Sign in to Chrome</p> <p>Personalizing Chrome</p>	Students will complete a project on a different computer by utilizing personalized Chrome to access bookmarks, extensions, apps.	<p>21.3–5.TL.5</p> <p>21.3–5.TL.3</p>
TLW understand how to log out of Chrome.	5-6	<p>Teach modeling, student practice.</p> <p>Discuss what information should be kept private from other users.</p>			21.3–5.TL.6
TLW organize frequently used resources through bookmarks.	5-6	<p>Teacher model, student practice. (Ctrl+Shift+B to view Bookmarks bar)</p>	Creating, Organizing Bookmarks	Students will access appropriate tools and sources over a period of time using bookmarks bar.	<p>21.3–5.TL.6</p> <p>21.3–5.TL.5</p> <p>21.3–5.TL.3</p>
TLW be able to filter search results.	5-6	Filter image search for creative commons license.			

TLW be able to locate and install appropriate Google Extensions and Apps from the Chrome Web store.	7-8	Teacher models search and installation of useful app relevant to specific project. Discuss difference between appropriate/useful apps and extensions, and those which are for fun. Discuss how web browsing speed can be affected by installing multiple extensions.	Using the Chrome Web Store Installing Apps	Students identify problem and search for tools in the Web Store that could solve the problem. Compare 2 or more tools to choose the most effective.	21.6– 8.TL.6
TLW differentiate between Apps, add-ons, and extensions as ways to improve the usefulness of a tool.	7-8	Teacher demonstrates examples of each. Students identify purpose and benefits.	What is a Web App? Benefits of Apps What is an Extension? Using Extensions	Students search and identify appropriate tools to improve browser or app usefulness when necessary.	21.6– 8.TL.6 21.6– 8.TL.5
TLW use keyboard shortcuts to increase efficiency.	7-8	Teacher modeling, student practice.	Chrome Keyboard Shortcuts	Students become “experts” on one keyboard shortcut, then teach other students about its usefulness.	21.6– 8.TL.6 21.6– 8.TL.5
TLW evaluate and adjust safe search and privacy settings.	7-8	Teach skills in context of curriculum. Discuss how private Incognito mode actually is.	Privacy Settings SafeSearch Settings		21.3– 5.TL.5
TLW use school account to access third-party tools and services.	7-8	Model logging into tools using Google Account (Easybib, Kidblog, Quizlet, Prezi, etc.)	Connected Apps Settings		21.3– 5.TL.5

The learner will understand the difference between being logged into Google Chrome and Google apps.

Topic: Google Classroom

Google Classroom is really an administrative platform for engaging with the rest of the Google Suite (Drive, Docs, Slides Etc.) and third-party apps. These objectives are designed to ensure that learners are able to navigate the platform effectively.

All resources, tools, handouts, and links for Classroom are located at: [Google Classroom Help Center](#).

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	Assessment Options (Authentic)	CCSS
TLW join a Google classroom as a "student." (Teachers must select "teacher" the first time using Classroom).	3-4	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.3-5.TL.6
TLW be able to access the Google Sites/Google Classroom of their teachers.	3-4	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.3-5.TL.6
TLW be able to open and read instructions in an assignment through Google Classroom.	3-4	View tutorial, model on Smartboard, and practice in class.		Successfully complete an assignment in Google Classroom.	21.3-5.TL.6
TLW distinguish between sharing, turning in, and marking done on an assignment; the learner will understand s/he needs to unsubmit an assignment in	5-6	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.6-8.TL.6

Google Classroom in order to edit it again.					
TLW be able to create or attach a new Google file to turn in for an assignment.	5-6			Successfully complete an assignment in Google Classroom.	21.6-8.TL.6
TLW be able to post in the stream and read and respond (via tagging) to other student contributions to the stream.	7-8	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.6-8.TL.6
TLW be able to check on their assignment grades through Google Classroom.	7-8	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.6-8.TL.6
TLW be able to check posted individual and class comments in the gradebook section of Google Classroom	7-8	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.6-8.TL.6
TLW understand that Google does not notify instructor when late submissions come in.	7-8	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.6-8.TL.6

TLW create a reliable pathway to Google Classroom (bookmark, app list, phone/device app, etc.).	3-4	View tutorial, model on Smartboard, and practice in class.	See Google Classroom Help Center .	Successfully complete an assignment in Google Classroom.	21.3-5.TL.6
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Google Classroom seems to work well with

- Semi-private sharing or within-class publishing opportunities/sharing
- Exit slips
- Providing resources
- Sharing handouts: Study guides
- Sharing and collecting surveys (via Google Forms)
- Turning in and grading papers (essays, narratives, reports, etc.)
- Sharing and collecting links to student work on outside apps/sites (e.g. submitting a WeVideo link or a Prezi in a Google Form)

Google Classroom doesn't seem to work well with

- Charts
- Discussion
- Reading/Grading study guides or handouts

Third Party Apps that are Useful with Classroom

- Goobric/Doctopus -- Doctopus pulls the student work into a spreadsheet, Goobric allows teachers to access their own rubric and the Google Doc simultaneously on the screen (click for tutorial: <https://youtu.be/rONXeDKPyls>)
- Screencastify/Screencast-O-Matic -- These screencast apps allow teachers to provide easy instructions in the form of a video that allows students to review instructions at their own pace.
- Remind -- This free app allows teachers to send an anonymous, one-way text message to students/parents with reminders about due dates

Topic: Technology Literacy

Objective	Grade Level	Activities/Lesson Ideas	Resources - Tools - Handouts - Links	CCSS
<p>Essential Concept and/or Skill: <i>Understand basic technology hardware and software and their application.</i></p>	k-2	<p>What is the difference between a desktop, laptop, tablet, and Chromebook?</p> <p>Identify specific hardware: a system unit, monitor, printer, keyboard, mouse or touchpad, USB port</p> <p>Turn device and peripherals on and off</p> <p>Log in to device and log in to various applications</p> <p>Open a browser.</p> <p>Open multiple tabs in a browser and navigate between tabs.</p> <p>Troubleshoot basic problems.</p>	<p>What is the web?</p> <p>What is a web browser?</p> <p>Find the Technology Game - ABCya</p>	<p>21.K–2.TL.6 Choose the most appropriate technology tool for a given task.</p> <p>Demonstrate a basic knowledge of how technology is supposed to function and know when it is not working properly.</p> <p>Know when to seek adult assistance for technology problems.</p> <p>Explore new technologies using existing skills and knowledge.</p>
<p>Essential Concept and/or Skill: <i>Understand technology hardware and software system operations and their application.</i></p>	3-5	<p>Log in to device and log in to various applications</p> <p>Demonstrate knowledge of function and placement of keys on keyboard: enter, shift, control, backspace, delete, arrow keys, tab, caps lock, number lock, undo</p> <p>Troubleshoot basic problems</p>		<p>21.3–5.TL.6 Use everyday technology processes, hardware, and software. Select the most efficient and appropriate technology tool for a specific task.</p> <p>Begin to identify the source of a problem with technology, and, if necessary, identify the appropriate support personnel.</p>

		<p>Know difference between cloud, network and local computer</p> <p>Drag and drop, touch and hold</p> <p>Use mouse and trackpad to select check boxes, use drop-down menus and scroll</p> <p>Adjust volume and mute audio</p> <p>Plug in headphones correctly and use when appropriate</p> <p>Identify icons on desktop (Internet browser, Control Panel, Recycle Bin)</p> <p>Demonstrate the ability to use the Recycle Bin correctly for deleting and retrieving items</p> <p>Demonstrate the ability to use the Recycle Bin correctly for trashing and retrieving items</p> <p>Demonstrate appropriate use and ability to right-click and left-click</p> <p>Identify storage media: USB/Flash drives (external) and hard drive (external and internal)</p>		Apply prior knowledge of technologies to new technologies.
Essential Concept and/or Skill: <i>Understand the underlying structure and application of</i>	6-8	<p>What is "cloud computing" and what are its advantages?</p> <p>What are some common examples of cloud computing in today's schools and libraries?</p>		21.6–8.TL.6 Utilize technology for everyday use and understand how technology systems can be applied to various situations.

<p><i>technology systems.</i></p>		<p>What are some cloud- based school applications?</p> <p>What are the major concerns about cloud-computing and are they justified?</p> <p>Troubleshooting basic problems.</p>		<p>Select and use technology applications to conduct research, solve problems and produce finished products.</p> <p>Identify the source of a problem with technology, and, if necessary, the appropriate support personnel needed.</p> <p>Apply knowledge of technology to explore other technologies and be able to identify commonalities among them.</p>
<p>Essential Concept and/or Skill: <i>Demonstrate a sound understanding of technology concepts, systems and operations.</i></p>	<p>9-12</p>			<p>21.9–12.TL.6 Understand and use technology systems. Students adapt to evolving technology systems and apply them for everyday use. They also interpret the underlying structure of the system so it can be used for multiple purposes and applied to unique situations. Select and use applications effectively and productively. Students select and apply technology tools for research, information analysis, problem solving, and decision making. Students use technology tools and resources for managing and communicating personal and professional information (e.g., finances, schedules, addresses, purchases, correspondence).</p>

				<p>Troubleshoot systems and applications. Students utilize a working knowledge of technology or technological support services to identify a problem/issue and its solution.</p> <p>Transfer current knowledge to learning of new technologies. Students apply what they know of one technology to intuitively utilize other technologies.</p>
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