Chromebook Accessibility

Laura Allen & Kara Booker

Agenda

✓ Why Accessibility Matters

✓ Chromebook accessibility features

✓ Exploring additional extensions

✓ Leveraging G Suite apps for diverse learners

✓ Where to learn more

Why accessibility matters

15% of the world's population has some form of disability

Vision
Blind
Low Vision
Colorblind
Farsighted

Hearing
Deaf or Hard of Hearing

Motor
Loss of function of a
body part - ranges from
total paralysis to limited
dexterity and mobility

Cognitive
Challenge processing
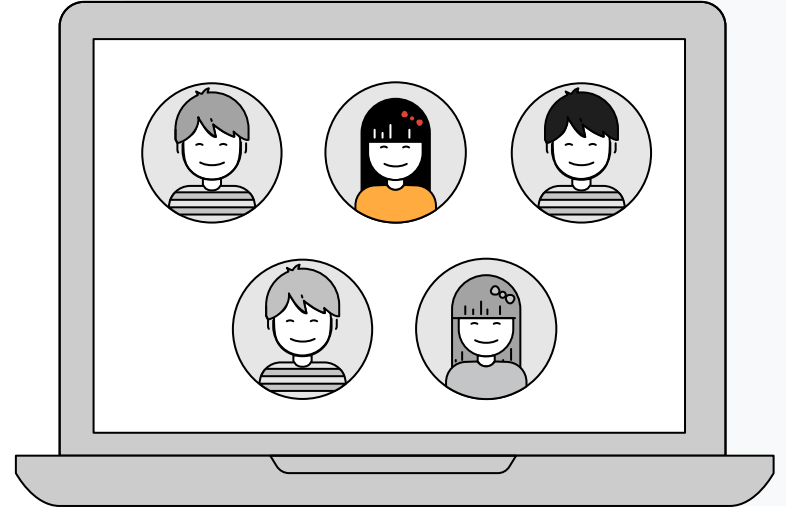info. May affect: reading,
writing, organization,
comm., focus

WHO World Report on Disability

There are **93 million** children living with a disability worldwide.

UNICEF

1 in 5 school-age children have special needs in the US

Education Week

Access - or lack thereof - can shift someone's entire trajectory

"Inclusion [with ATs and Chromebooks] has increased the ability for students who would typically be taken out of class to now be in the class getting the same knowledge, same vocabulary, same content, as other students and allows students to be part of their peers and more socially accepted."
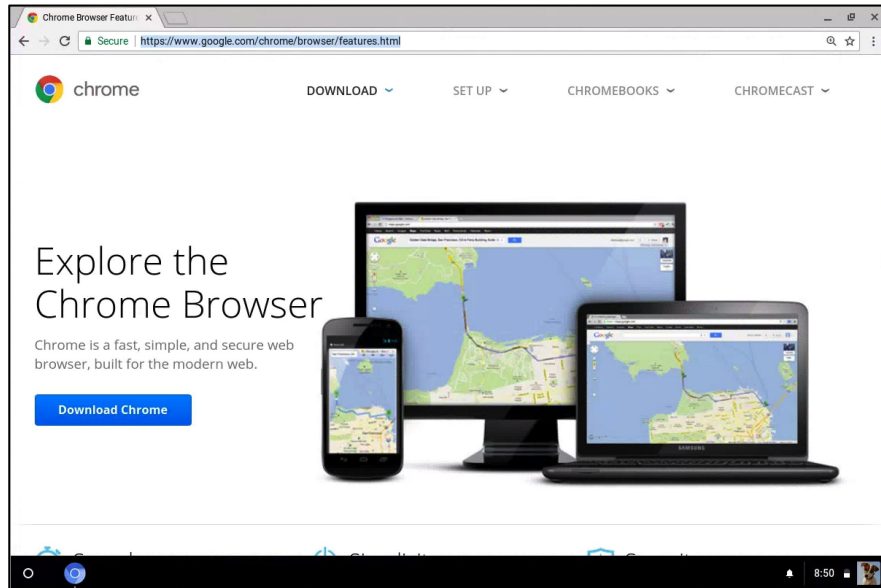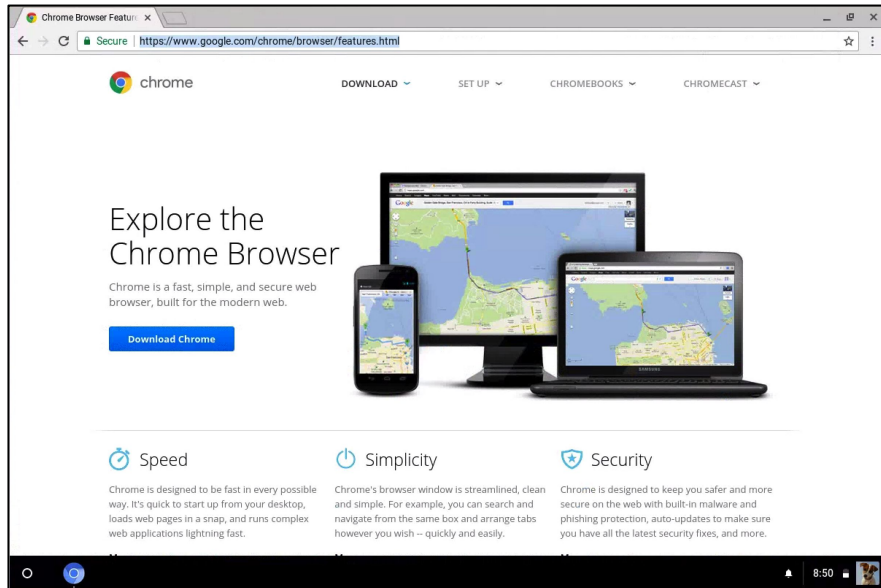
Accessible out of the box

Chromebooks and other Chrome devices can be enjoyed by everyone, including users with disabilities, right out of the box.

Making things easier to see
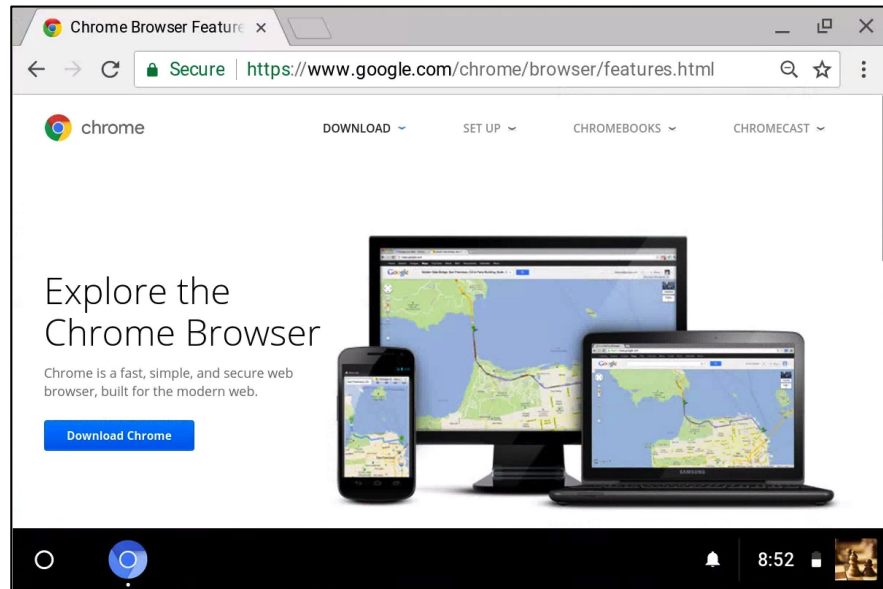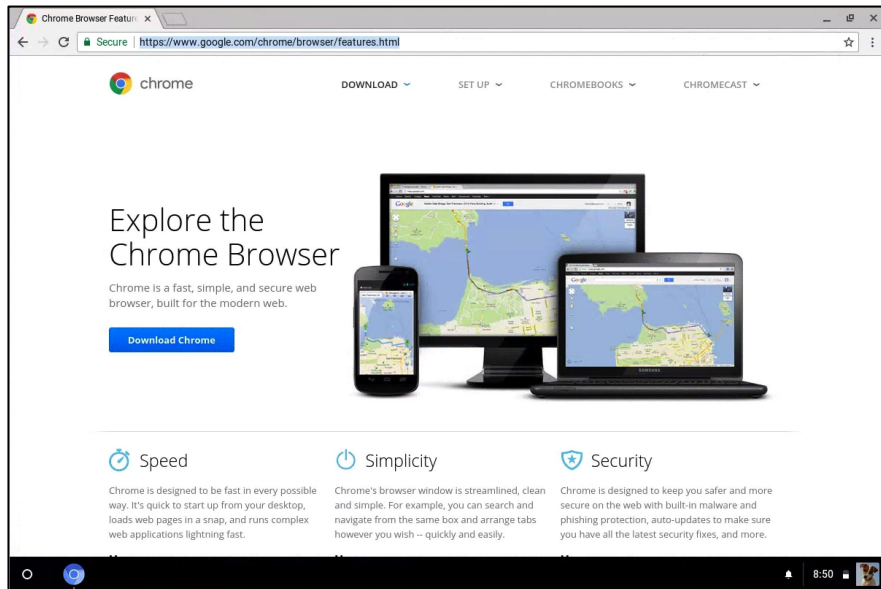
Increase Size of Browser Content

Press **Ctrl + Plus** to increase, **Ctrl + Minus** to decrease, **Ctrl + 0** to reset

The rest of the desktop is unaffected

Increase Size of All Items

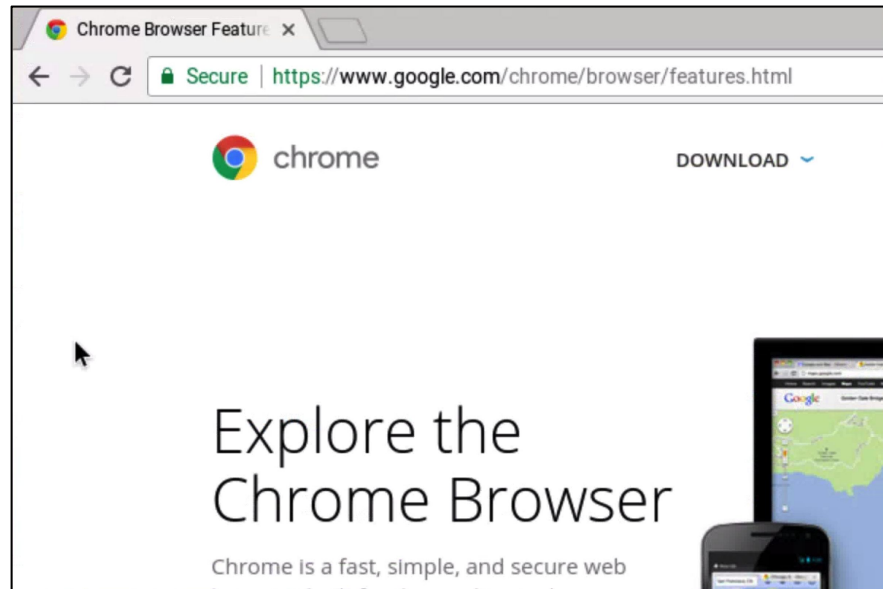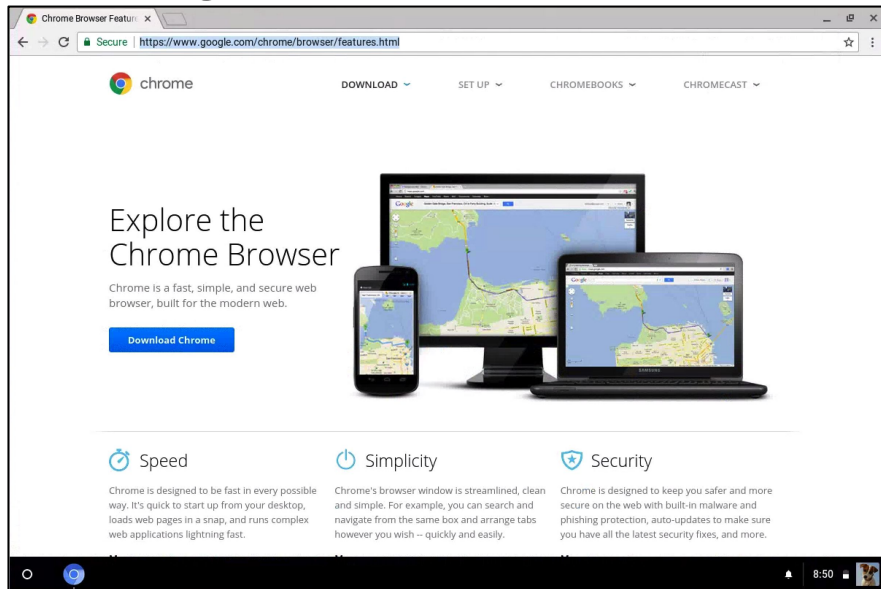Press **Ctrl +Shift + Plus** to increase, **Ctrl + Shift + Minus** to decrease

Note that the status tray and tab strip enlarge, too. **Ctrl + Shift + 0** to reset.

Turn on Built-In Fullscreen Magnifier

Settings > Accessibility > Enable Screen Magnifier, or **Ctrl + Search + m**
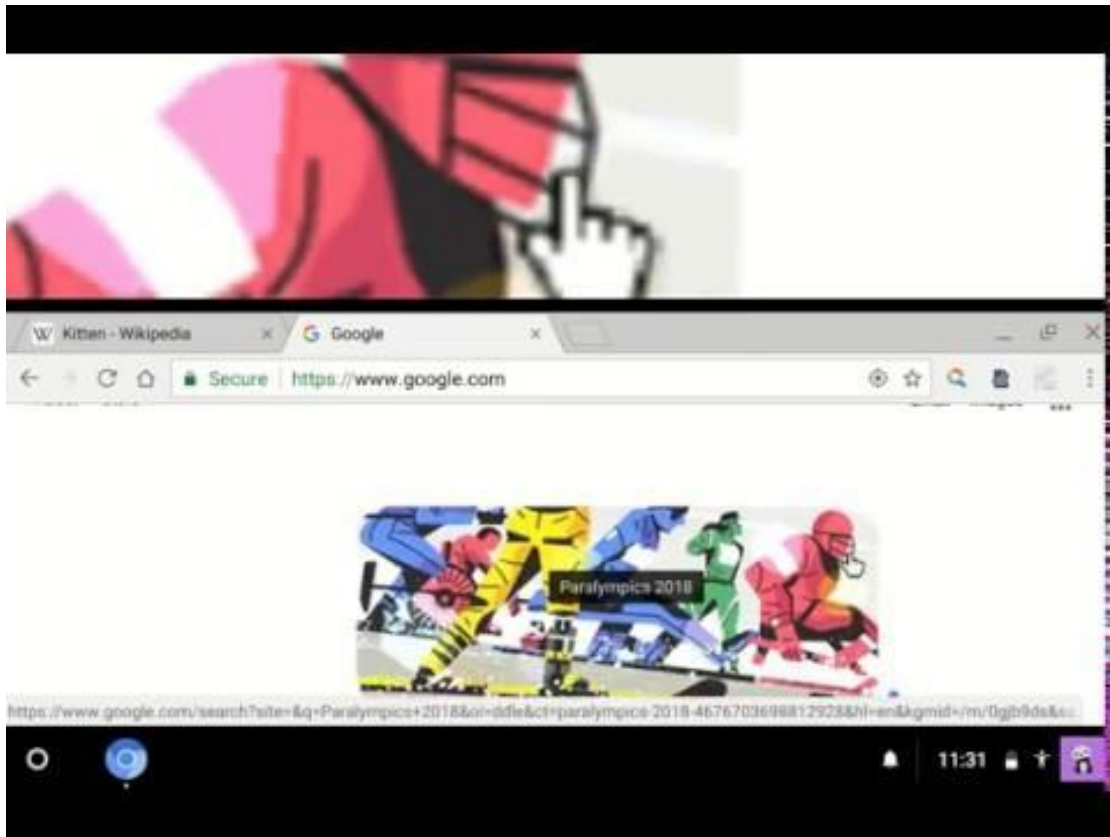
To adjust, hold **Ctrl + Alt and scroll 2 fingers on touchpad**, or adjust in settings
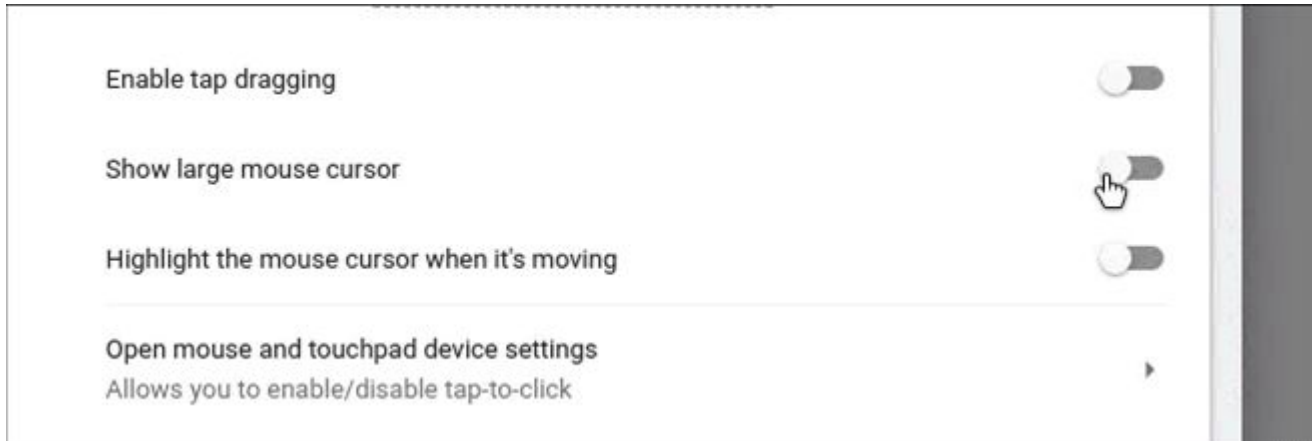
Use the Docked Magnifier

Settings > Accessibility > Enable Docked Magnifier, or **Ctrl + Search + d**

To adjust zoom level, choose a zoom level from the dropdown in settings, or press **Ctrl + Alt and scroll 2 fingers** on the touchpad.

Adjustable Mouse Cursor

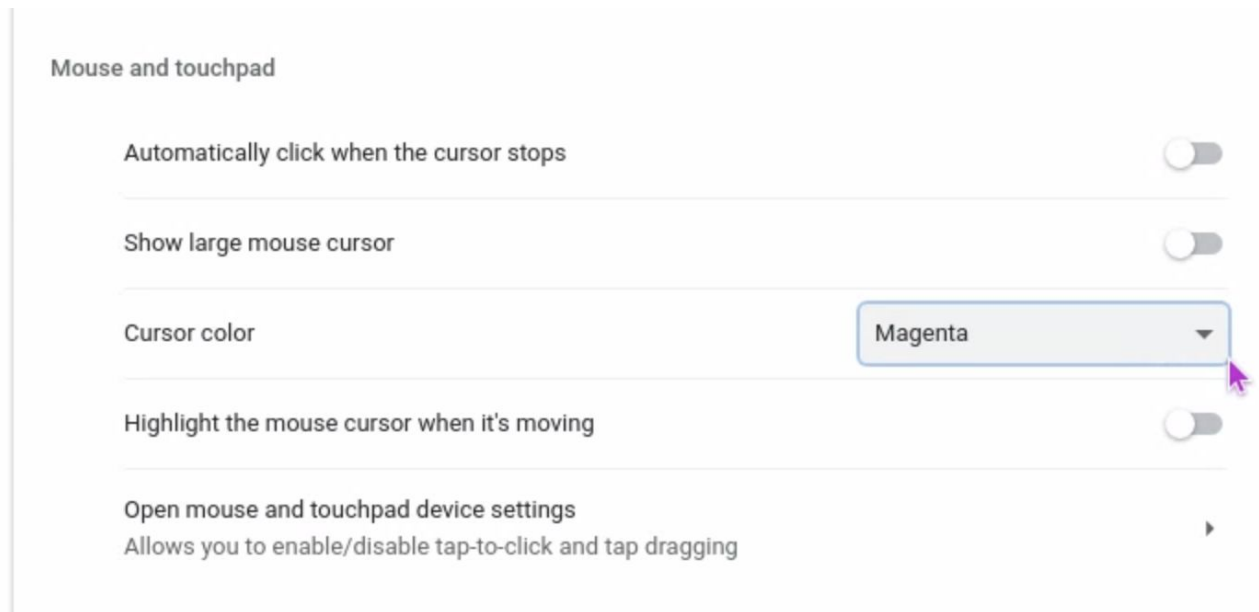Some users prefer a larger mouse cursor.

Change the Color of the Mouse Cursor

Some users prefer different cursor colors to improve visibility.

Mouse and touchpad

Automatically click when the cursor stops

Show large mouse cursor

Cursor color   Magenta

Highlight the mouse cursor when it's moving

Open mouse and touchpad device settings
Allows you to enable/disable tap-to-click and tap dragging

Highlight the Mouse Cursor, Text Caret, and Focus

In addition, colored circles can highlight the mouse cursor, text caret (insertion point), and the object with keyboard focus.

High-Contrast Mode

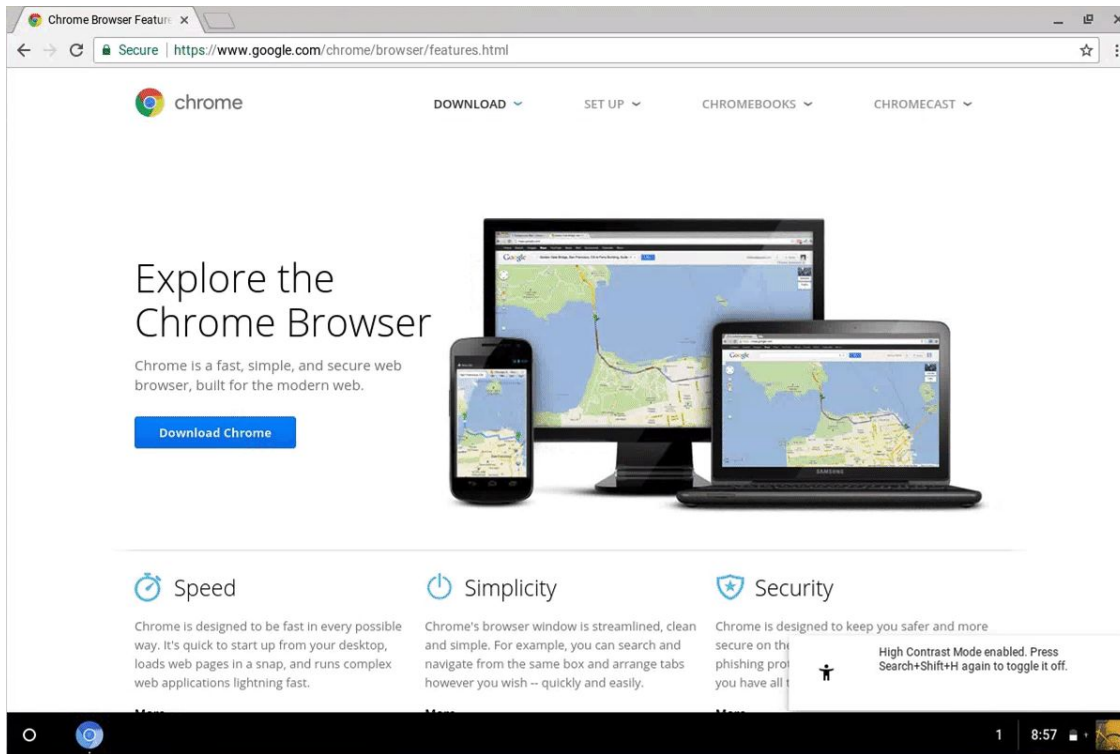We also offer lots of options for users who just want to make the screen a little bit easier to see.

Some users prefer High-contrast mode, which inverts all colors.

Press **Ctrl + Search + h** to toggle.

Features for improved motor interactions

Easy Dictation into Any Text Field

Speak to type text into any edit field on your

Chromebook!

- Enable in Accessibility Settings

- Place your cursor in an edit field

- Click or tap the microphone icon, or press **Search**

  + d to begin

On-Screen Keyboard

The on-screen keyboard enables typing into any text field using a touchscreen or with the mouse.

It also supports handwriting and dictation.
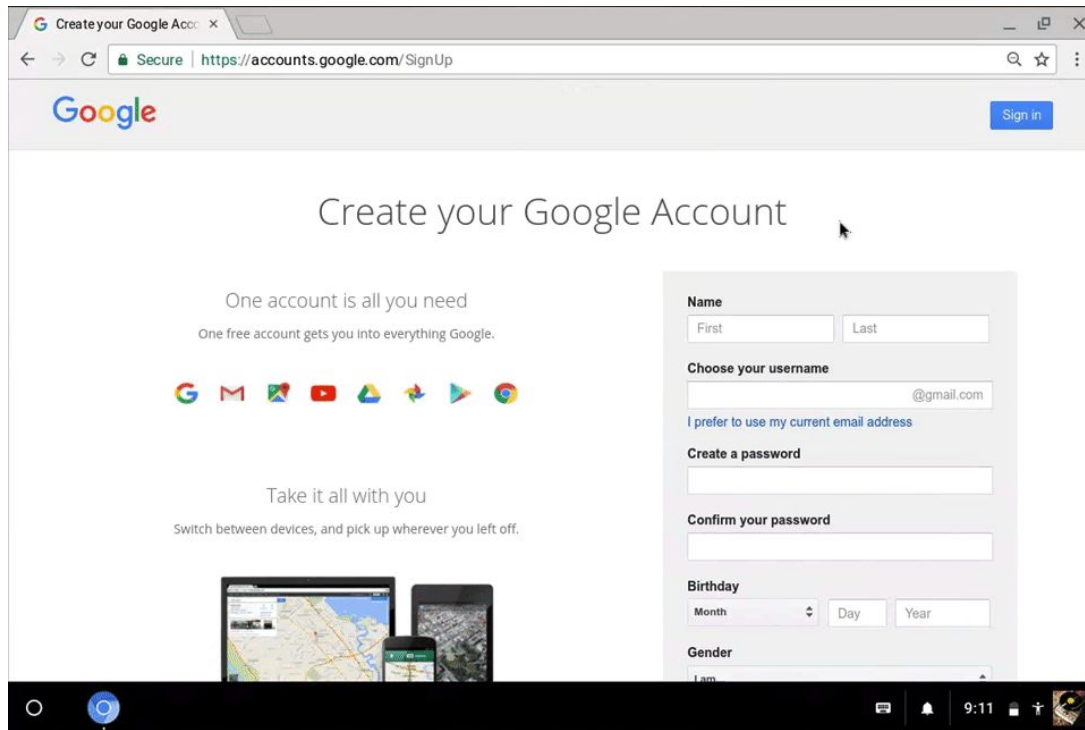
Chrome OS Automatic Clicks

High-impact feature for users with motor impairments who don't have the ability to put pressure on the mouse to click. Pairs with mouse, joystick, or head control.

Recording 01:12
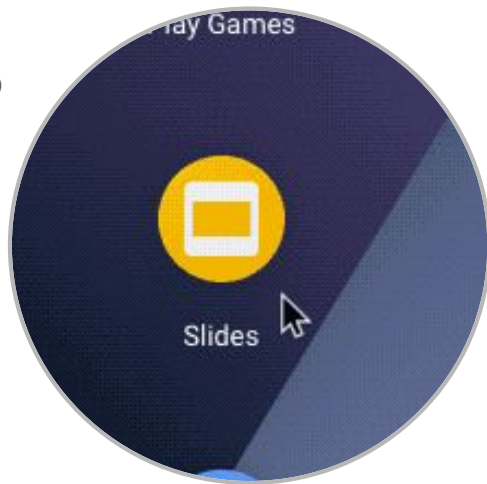
Your desktop is being recorded

Auto-stop   OFF

Show webcam preview

powered by Screencastify

WIKIPEDIA
The Free Encyclopedia

Article   Talk

Not logged in   Talk   Contributions   ...count   Log in

ew source   View history

Search Wikipedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia
Wikipedia store

Interaction

Help
About Wikipedia
Community portal
Recent changes
Contact page

Tools

What links here
Related changes
Upload file
Special pages
Permanent link
Page information
Wikidata item
Cite this page

In other projects

Wikimedia Commons

Wiki Loves Monuments: Photogra...
Learn more

Puppy

From Wikipedia, the free encyclopedia

This article is about the domestic dog. For other uses, see Puppy (disambiguation).

A **puppy** is a juvenile dog. Some puppies can weigh 1-1.5 kg (3-3 lb), while larger ones can weigh up to 7–11 kg (15-23 lb). All healthy puppies grow quickly after birth. A puppy's coat color may change as the puppy grows older, as is commonly seen in breeds such as the Yorkshire Terrier. Puppy refers specifically to young dogs,[1] while *pup* may be used for other animals such as seals, giraffes, guinea pigs, rats or sharks.[2]

Contents [hide]

1 Development
2 Socialization
3 Docking and declawing
4 References
5 Further reading
6 External links

Golden Retriever puppy

Development

Born after an average of 63 days of gestation, puppies emerge in an amnion that is bitten off and eaten by the mother dog.[3] Puppies begin to nurse almost immediately. If the litter exceeds six puppies, particularly if one or more are obvious runts, human intervention in hand-feeding the stronger puppies is necessary to ensure that the runts get proper nourishment and attention from the mother. As they ...one month of age, puppies are gradually weaned and begin to eat solid food. The mother may regurgitate partially digested food for ...ppies or might let them eat some of her solid food.[4] The mother usually refuses to nurse at this stage, though she might let them

Physical Keyboard & Touchpad Settings

For users who have difficulty using a mouse, touchpad, or keyboard, there are many options to make them easier to use.

Touchpad Settings	Physical Keyboard Settings
- Tap to click - Tap dragging - Automatic clicks	- Sticky keys - Adjust keyboard repeat rate - Adjust delay before repeating

Chrome OS Switch Access

Enables a user to interact with their device using one or more switches. For users who can't use a traditional mouse and keyboard, Switch Access automatically scans the items on your screen until you make a selection with a switch.

Captions & making content easier to hear

Mono Audio

For any users who may have limited hearing in one ear, there's a Mono Audio option to play the same sound through both speakers.

Customize Captions Styles

Adjust font, text size, text color, opacity, shadow and more of closed captions in videos!

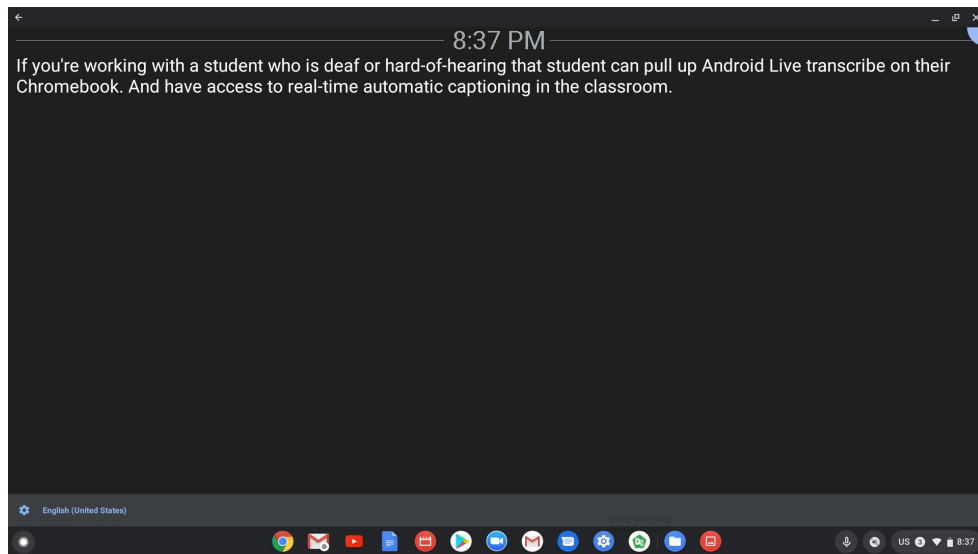# Access Android Live Transcribe from the Play Store!

Live Transcribe is an Android app that is also available on Chromebooks. Search and install Live Transcribe to get realtime captions of spoken audio in a wide variety of languages!
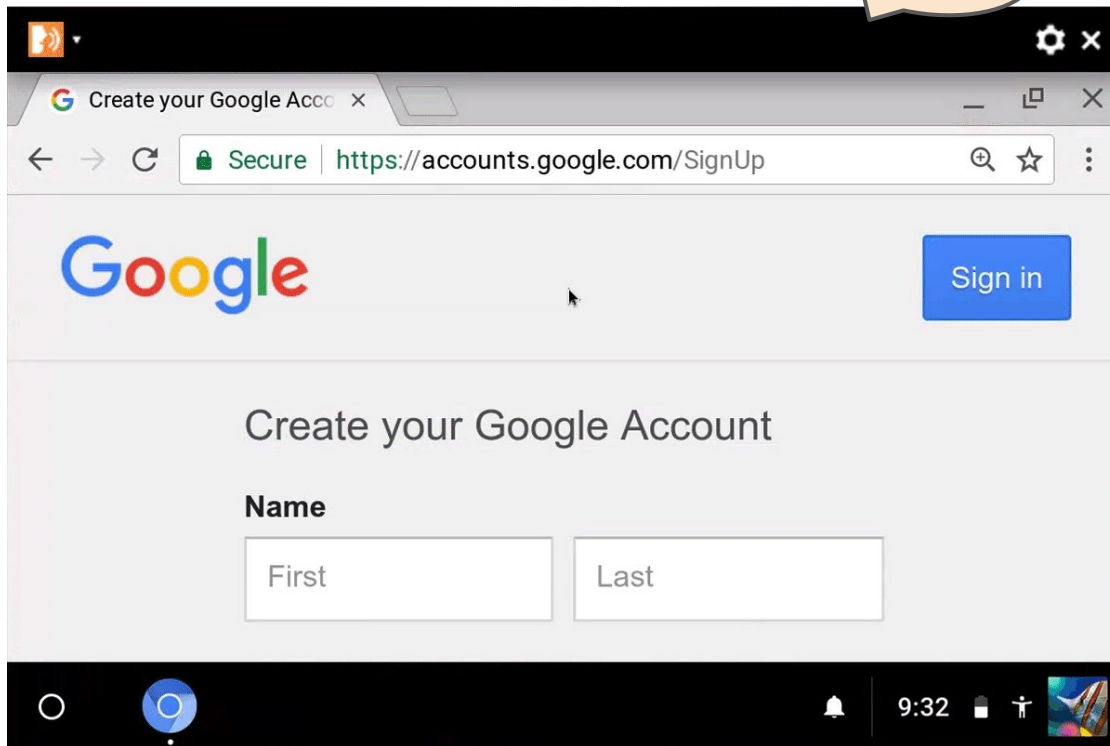
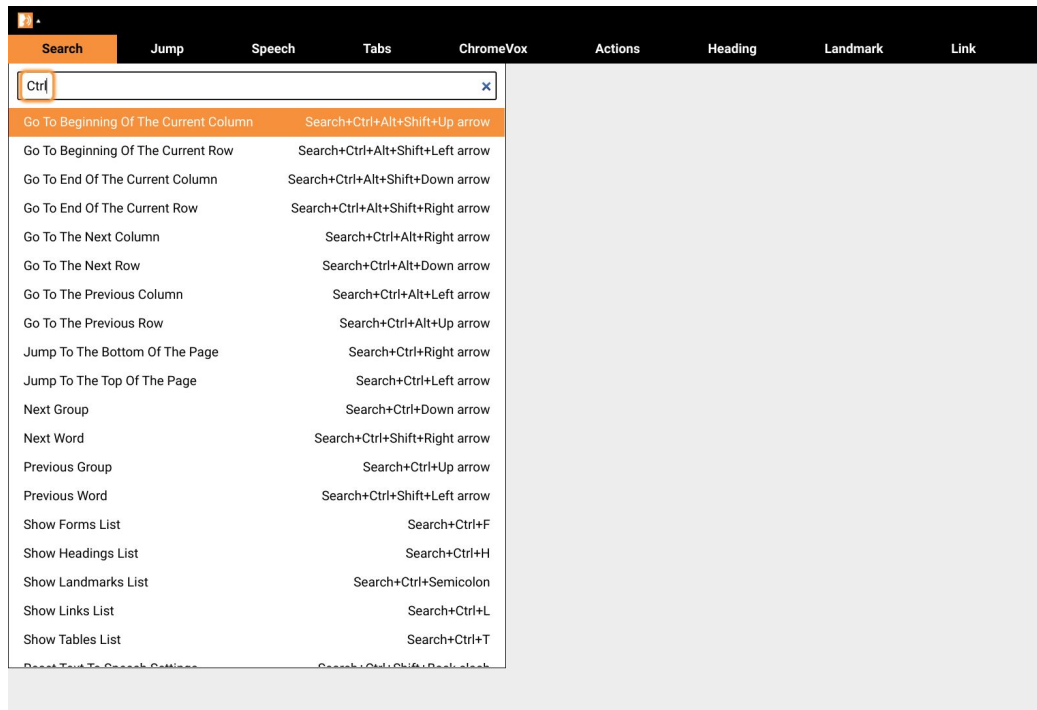# Spoken feedback

ChromeVox Screen Reader

The built-in ChromeVox screen reader makes everything accessible using synthesized speech.

Press Ctrl+Alt+Z to enable or disable it at any time.

Lots of ChromeVox Improvements!

✓ Faster, more consistent experience

✓ Searchable ChromeVox menu

✓ Automatic Voice Switching

✓ New ChromeVox Panel with speech and optionally Braille output

✓ Additional speech customizations

✓ Smart Sticky mode

✓ New set of navigational sounds ("earcons"), with stereo positioning

Search	Jump	Speech	Tabs	ChromeVox	Actions	Heading	Landmark	Link

Ctrl

| Go To Beginning Of The Current Column	Search+Ctrl+Alt+Shift+Up arrow
Go To Beginning Of The Current Row	Search+Ctrl+Alt+Shift+Left arrow
Go To End Of The Current Column	Search+Ctrl+Alt+Shift+Down arrow
Go To End Of The Current Row	Search+Ctrl+Alt+Shift+Right arrow
Go To The Next Column	Search+Ctrl+Alt+Right arrow
Go To The Next Row	Search+Ctrl+Alt+Down arrow
Go To The Previous Column	Search+Ctrl+Alt+Left arrow
Go To The Previous Row	Search+Ctrl+Alt+Up arrow
Jump To The Bottom Of The Page	Search+Ctrl+Right arrow
Jump To The Top Of The Page	Search+Ctrl+Left arrow
Next Group	Search+Ctrl+Down arrow
Next Word	Search+Ctrl+Shift+Right arrow
Previous Group	Search+Ctrl+Up arrow
Previous Word	Search+Ctrl+Shift+Left arrow
Show Forms List	Search+Ctrl+F
Show Headings List	Search+Ctrl+H
Show Landmarks List	Search+Ctrl+Semicolon
Show Links List	Search+Ctrl+L
Show Tables List	Search+Ctrl+T

ChromeVox Menus

ChromeVox Braille Support

Visually impaired users can also attach a compatible refreshable braille display (USB or bluetooth). To enable teachers and technicians to work with visually impaired users, both the braille and its text equivalent are also shown at the top of the screen.
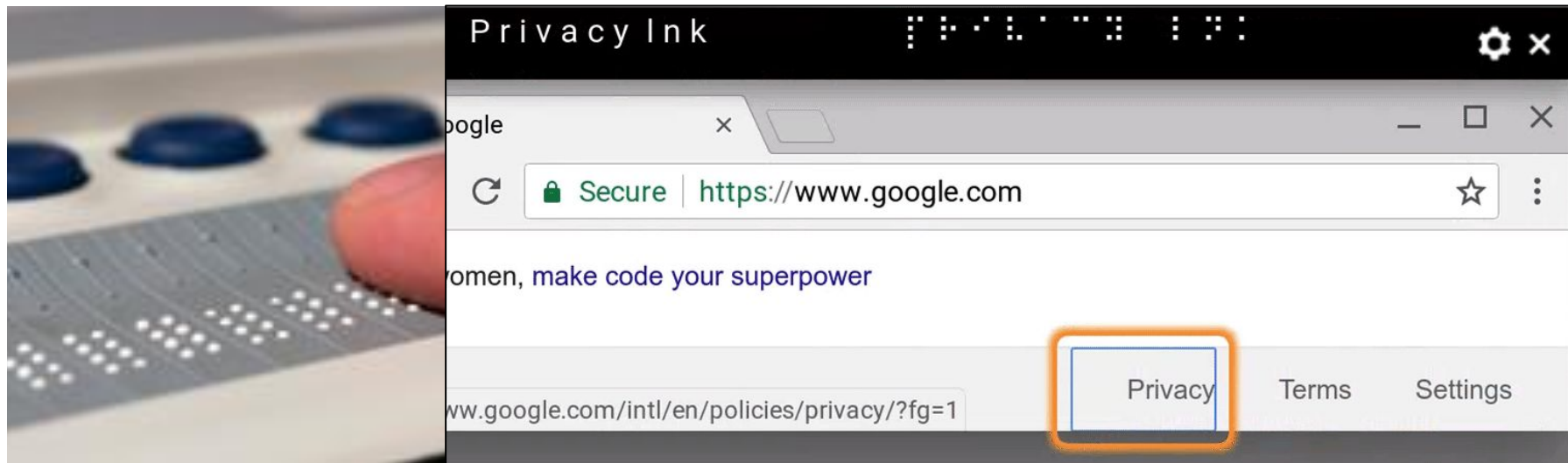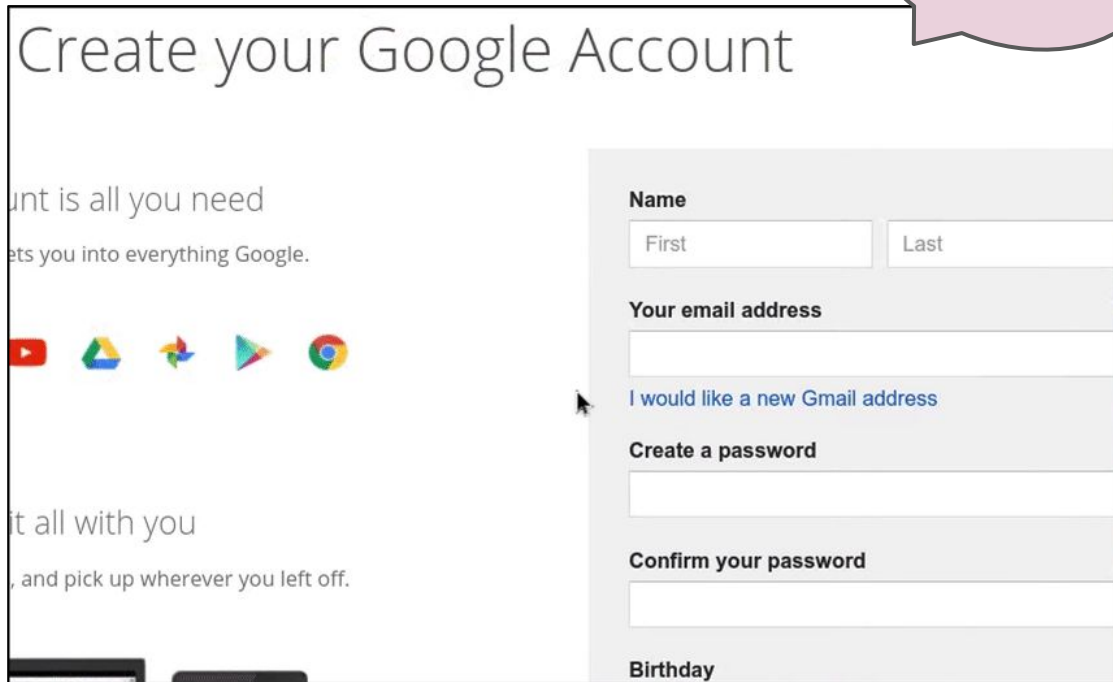
Select-to-Speak

For users who only need synthesized speech on occasion, we offer Select-to-speak.

Press and hold the Search key, then click or drag to select content to be read aloud.

New! Background shading for better focus

Text-to-Speech Voices from Acapela!

We've added the ability to download and install Acapela voices on Chromebooks!

30+ languages, 100+ voices!

Chrome OS Select-to-Speak Demo with Acapela Child's Voice

Customizing Chromebooks with Apps & Extensions

Reducing clutter and distractions

Stay Focusd
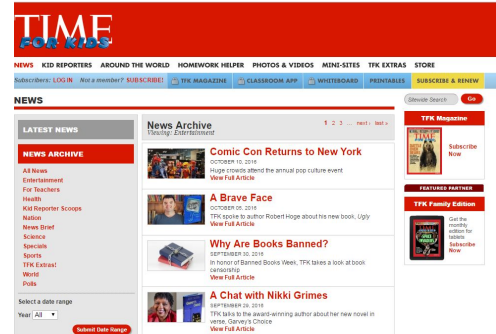

Limits time you spend on each site

Huge help for students with ADHD

MagicScroll Web Reader

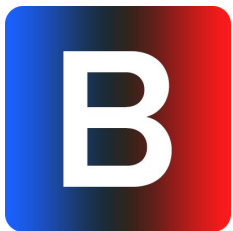Removes clutter and distractions (noise) from busy websites

Adblock Plus

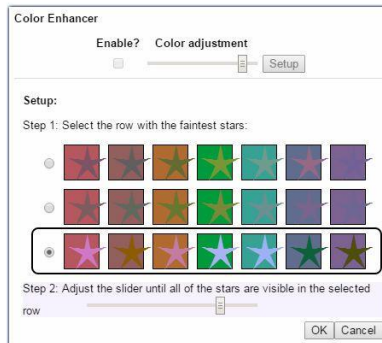Blocks all ads to help increase focus

Increasing visibility & Reducing Eye Strain
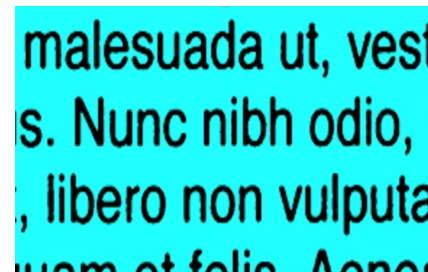
BeeLine Reader

- Reduces eye strain
- Assists with eye tracking
- Dyslexic-friendly font

Google Color Enhancer

- Customizable color filter
- Improves color perception

MagX

- Turns computer into a video magnifier
- High contrast, magnification, and color viewing options

Improving Content Interaction

Read&Write

- Word prediction
- Text to speech
- Picture dictionary
- Voice notes
- Collect highlights

Co:Writer

- Excellent word prediction
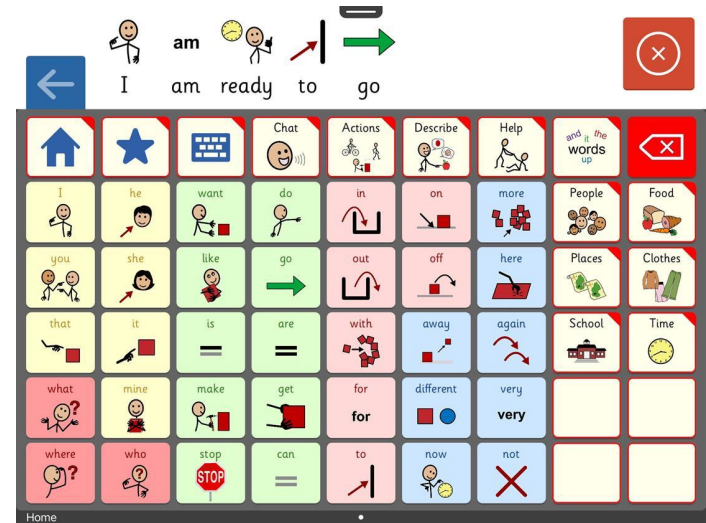- Support with grammar and spelling

Dualless

- Splits screen on a Chromebook like a dual monitor
- Helps with focus

AAC - Clicker Communicator App

- Available for purchase from the Chrome Web Store
- Works offline
- Excellent integration with Google Drive
- Acapela childrens voices available
- Core vocabulary sets available, as well as highly customizable ones

Leveraging G Suite Apps - Anecdotes from Teachers

Drive - The New Digital Backpack!
- Students with executive functioning issues often struggle with **organization**.
- Google Drive can quickly become a mess.
- Opportunity for learning **important skills**.

Simplicity Of Docs Can Have a Huge Impact!

- Gives students **independence and dignity** - teachers and students can work together without sitting next to each other

- Consider embedding links to images/videos to help with **comprehension**

- Leverage speech to text for kids who may shut down when they are told to write to increase **engagement**
- Use **hyperdocs** for self-paced and inquiry-based learning.

Slides

- Seamless ability to include **images, videos, and annotations**
- Easy to **break down tasks** and assignments on a per-slide basis, with helpful notes in the speaker notes section
- Linear nature of slides creates a natural **organizational structure** that is visual
- Q&A allows students to **interact and ask questions** in an unobtrusive manner

Forms - More Than A Survey!

- **Tracking** student growth
- **Documenting** IEP data
- IEP team collects and views **data** on goal growth
- Gathering **information** from students, parents, staff, etc.
- Student work **submissions**
- **Flipped lessons**
- Students **gathering info** from each other
- Digital **quizzes** and giving **feedback**

Where to Learn More

Resources & Communication

Resources

- ✓ Google Accessibility site: google.com/accessibility
- ✓ Google Accessibility Help Center: g.co/help/accessibility
- ✓ Chromebook Help Center: support.google.com/chromebook
- ✓ Google Accessibility YouTube Playlist (includes 21 Chrome/Chrome OS videos) - goo.gle/a11y-youtube
- ✓ Chrome Web Store Accessibility Category
- ✓ Google for Edu site: edu.google.com/accessibility
- ✓ Teach from Anywhere site (includes guide for parents/guardians): g.co/teachfromanywhere

Communication

- ✓ **Join Google Groups at groups.google.com:**
    - ○ chromebook-accessibility@googlegroups.com
    - ○ chromevox-discuss@googlegroups.com
- ✓ Contact support agents: g.co/disabilitysupport

THANK YOU!