

# Chromebook

(And other Chrome OS Devices)

J. R. Davis May 14, 2019

# Outline

- Definitions Chrome, Chrome OS, Chromebook
- Differences Between Chromebooks and Traditional Computers
- Advantages and Limitations of Chromebooks
- Who Should Consider a Chromebook?
- Buying a Chromebook
- Other Chrome Devices
- New Chromebook Setup

# Definitions

#### Chrome Browser

A web browser built by Google, used for accessing web sites, working with web apps, accessing cloud storage, accessing social media and entertainment media

#### Chrome OS

Chrome OS is an operating system designed by Google that is based on the Linux OS core and uses the Google Chrome web browser as its principal user interface.

#### Chromebook

- A Chromebook is a laptop or tablet running Chrome OS as its operating system
- The devices are primarily used to perform a variety of tasks using the Google Chrome browser
- All Chromebooks released since late 2017 can also run Android apps

# **Chromebook Evolution**

- Google Released Chrome Browser in 2008
  - Broadband internet access was becoming more common
  - More and more people using the web browser exclusively
- Google began looking at Chrome as the new desktop for what people do every day
  - But Chrome had to be installed on a computer with an operating system like Windows, Mac OS, or Linux
  - Google paired Chrome with Linux and Chrome OS was born
- First Chromebooks were sold in 2011 (Acer and Samsung)

Note: First internet browser available in 1993 (Mosaic)

# **Traditional vs. Chromebook Differences**



## **APPLICATIONS**



## Differences -Applications

#### Traditional (Windows and Mac OS)

- Applications are purchased and installed on the computer hard drive
- Local to the OS and integrated with the OS

## Chromebooks

- Applications run within the web browser
- Link to web applications
  - Note: Many of these can run offline and linked online later

#### Differences -Files

#### Traditional (Windows and Mac OS)

- Large Hard Drive
- Storage for Docs, Music, Photos, Videos, etc.
- Size can be 2 TB or more

#### Chromebooks

- Files Stored in the Cloud (for the most part) but can be stored on internal SSD or local external drive if desired
- Files in the Cloud are treated like any other
- Limited Local Storage 16 to 64 GB common

# Advantages of Chromebooks

¢.	Simple and Easy to use	Nothing to Set Up or Configure Updates are Automatic in the Background Apps and Chrome Extensions are easy to add or remove
	Very Secure	Sandboxing Always up to date - automatic Easy to Reset for Fresh Start No Need for Anti-Virus Software
<b>H</b> .	Very Fast	
••	Inexpensive	
EZA -	Simplicity, Security, and Speed were core design principles	

# "Limitations" of Chromebooks

- Cannot run Windows, Mac OS, or iOS Programs (can run Android Apps on newer models – after 2017)
- Largely Dependent on a Live Internet Connection
- Optimized for Google Tools and Services (Gmail, Google Apps, Google Drive, etc.)

Note: Android apps and Chrome Extensions are minimizing the limitations. For example, Office Online works extremely well. Also, free versions of Microsoft Word, Excel, Outlook, and PowerPoint are available in the Google Play Store.

Who should consider a Chromebook?



# Consider a Chromebook if You:

- Use your computer for routine tasks such as
  - Browsing the Web
  - Email
  - Online commerce
  - Streaming music and videos
  - Photo viewing, organizing, routine editing
  - Routine office work
- Want a computer that's easy to use, secure, and costs less
- Don't need apps that require Windows or Mac OS to run

Commonly Used Apps and services supported by Chromebooks

Google Chrome and all Google Apps Email **Microsoft Office** Facebook Netflix Prime Video Skype TurboTax (online) iCloud And many more...

# Some popular Google Apps

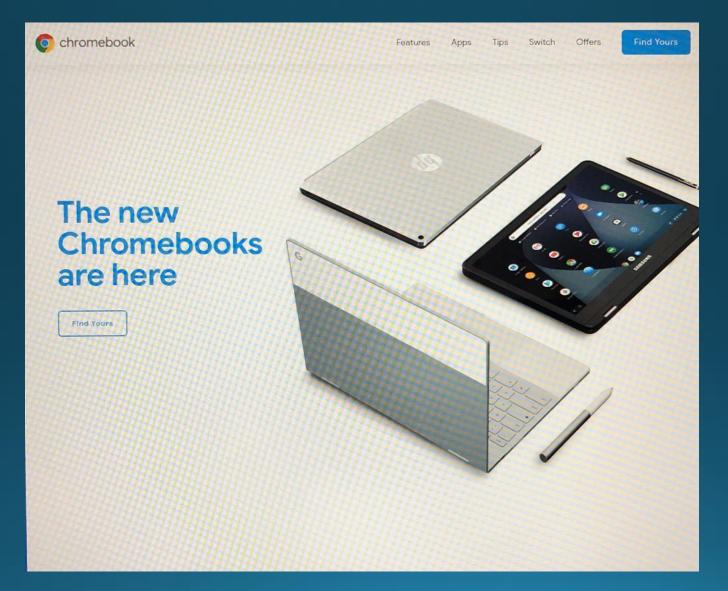
- Docs, Sheets, Slides (MS Office substitutes)
- Gmail
- YouTube
- Google Photos
- Google Calendar
- Google Maps
- Google Music
- Google Earth
- Google Flights
- Many other apps are available in the Chrome Web Store and Google Play Store

# Some apps that will not run on Chromebooks

- Quicken
- TurboTax (the application)
- ITunes
- Family Tree Maker (Ancestry/MacKiev)
- Advanced Video Editors such as Adobe Premier, Corel, Final Cut, etc.
- Any program (App) that requires Windows or Mac OS to run

Note: Some of these have alternatives

# **Google Chrome Website**



#### **Multiple Layers of Security**

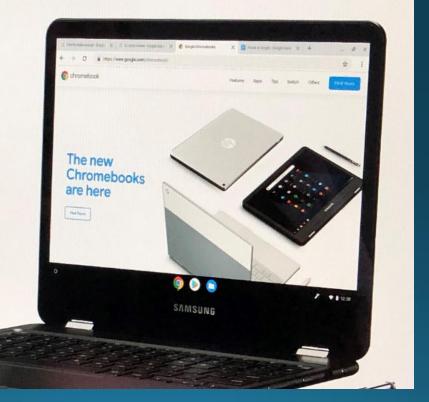
From the moment you open your Chromebook, you're protected by multiple layers of security to defend against malware, viruses and accidental mishaps.

#### Isolate potential incidents

Google Chrome uses a process called "sandboxing," so that every tab you open is isolated from the important functions of your Chromebook. That means that even if your tab lands on a page that is infected by malware, it can't attack the rest of the computer.

#### Power-wash known problems

Stay one step ahead with auto updates



#### **Isolate potential incidents**

Google Chrome uses a process called "sandboxing," so that every tab you open is isolated from the important functions of your Chromebook. That means that even if your tab lands on a page that is infected by malware, it can't attack the rest of the computer.

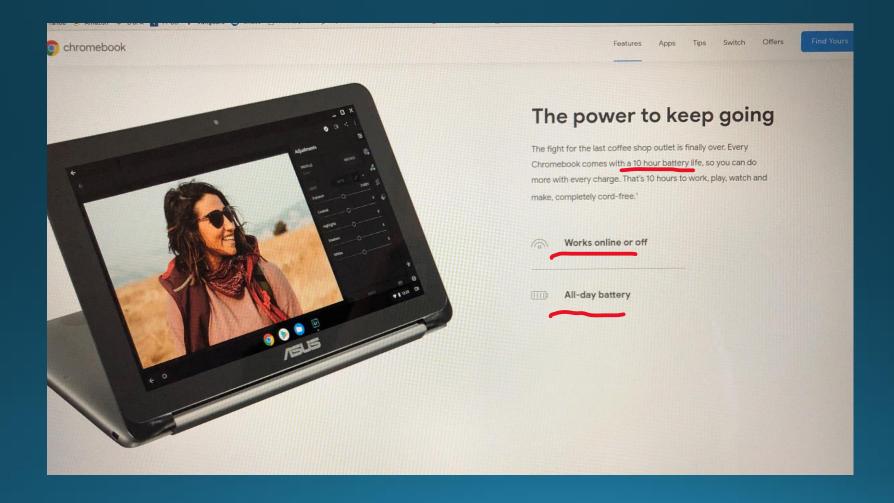
#### Power-wash known problems

In the rare cases where something does go wrong, a fresh start is just a click away. With the Power Washing feature on your Chromebook, you can easily refresh your device back to factory settings and get rid of any malware in the process.

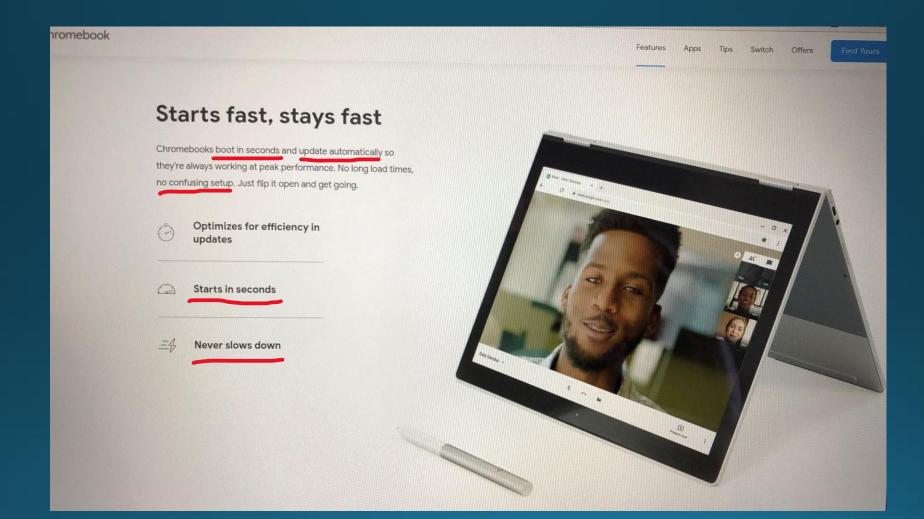
# Stay one step ahead with auto updates

Your Chromebook automatically updates its software in the background so you always have the latest and greatest security updates.

## **10-Hour Battery Life**



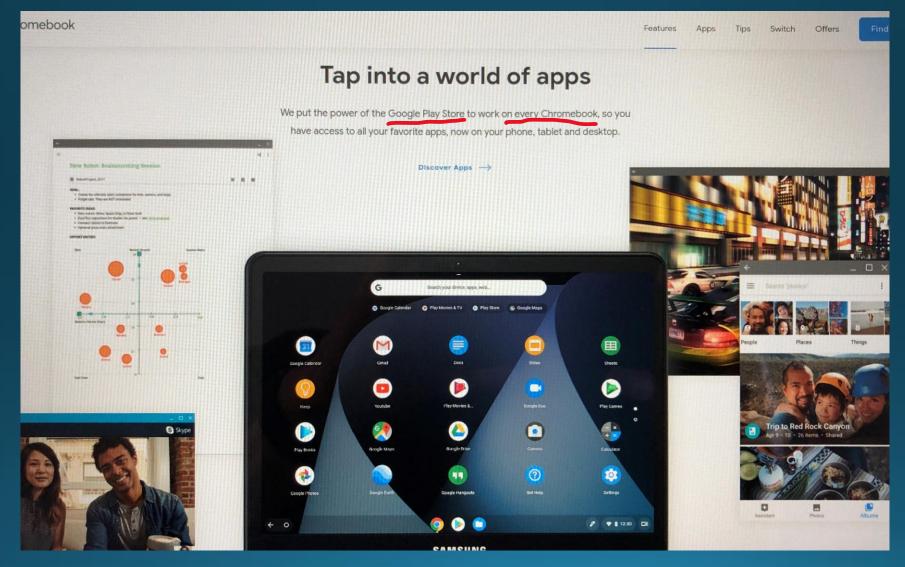
### **Starts Fast – Runs Fast**



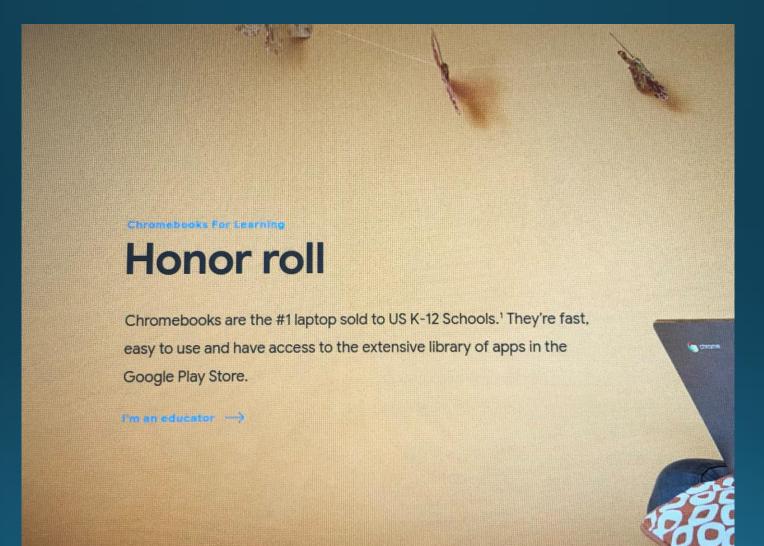
## **Syncs Across Devices**

C chromebook Features Apps Tips Switch Offers My Presentation - Google × + C B docs.google.com/presentation My Presentation MJC PRESENT -Stay seamlessly in sync - Q . K T E . Q . . E Background\_ Lavout Chrome keeps your open tabs, bookmarks and recent searches in THE IMPORTANCE OF sync across your Chromebook, phone and tablet so you get the HONEYBEES best browsing experience on every device. • 12:30 

## **Runs Android Apps**



### Number One in Schools



Leo Laporte, The Tech Guy Talks Chromebooks

Leo Laporte, The Tech Guy Talks Chromebooks

# Buying A Chromebook

### Who Makes Chromebooks?

- Acer
- Asus
- Dell
- Google
- HP
- Lenovo
- Samsung

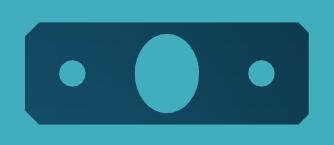


# Chromebook

# Prices Range about:

# \$200 to \$1,000





# Price Factors

Processor

Memory (RAM)

Storage (SSD)

Screen

Keyboard

**Case Materials** 

Manufacturer



Roll over image to zoom in

Toshiba CB35-B3340 13.3 Inch Chromebook (Intel Celeron, 4GB, 16GB SSD, Silver) Full HD-Screen by Toshiba ★★★★☆ × 1,699 customer reviews

| 888 answered questions

**Note:** This item is only available from third-party sellers (see all offers).

#### Available from these sellers.

Style: Laptop

Laptop from 6 sellers

Laptop with Backpack

- Intel Celeron Processor N2840
- 4 GB DDR3L SDRAM memory, 9-hour battery life
- Can Open/edit MS Office Files Using Free Embedded Quickoffice Editor or Google Docs,

#### Not Recommended – Better options available now



Roll over image to zoom in

2018 Newest Acer CB3-532 15.6" HD Chromebook with 3x Faster WiFi, Intel Dual-Core Celeron N3060 up to 2.48GHz, 2GB RAM, 16GB SSD, HDMI, USB 3.0, Webcam, 12-Hours Battery, Chrome OS (Certified Refurbis

by Acer

★★★★★ 26 customer reviews 40 answered questions

#### Price: \$151.98 **√prime**

Thank you for being a Prime member. Get \$70 off instantly: Pay \$81.98 upon approval for the Amazon Prime Rewards Visa Card. No annual fee.

#### Capacity: 2GB

2GB	4GB
\$151.98	\$171.99
√prime	√prime

Product works and looks like new. Comes with a



#### Roll over image to zoom in

Lenovo Chromebook S330 Laptop, 14-Inch FHD (1920 x 1080) Display, MediaTek MT8173C Processor, 4GB LPDDR3, 64GB eMMC, Chrome OS, 81JW0000US, Business Black

#### by Lenovo

List Price: <del>\$288.18</del> Price: **\$219.99 √prime** You Save: **\$68.19 (24%)** 

Thank you for being a Prime member. Get \$70 off instantly: Pay \$149.99 upon approval for the Amazon Prime Rewards Visa Card. No annual fee.

- HIGH PERFORMANCE LAPTOP: The Chromebook S330 is equipped with a MediaTek MTK8173C Processor, Chrome OS, 4 GB LPDDR3, 64 GB eMMC 5. 1 and so much more.
- Sleek & stylish design: sleek, stylish and secure,

# Costco Displays 5/2/19





## The PC Club's Chromebook



Roll over image to zoom in

Acer Chromebook 15 CB515-1HT-P39B, Pentium N4200, 15.6" Full HD Touch, 4GB LPDDR4, 32GB Storage, Pure Silver

by Acer

★★★☆☆ ~ 130 customer reviews | 121 answered questions

#### Price: \$382.00 **/prime**

Get \$70 off instantly: Pay \$312.00 upon approval for the Amazon Prime Rewards Visa Card.

**Note:** Available at a lower price from other sellers, potentially without free Prime shipping.

- Chromebook runs on Chrome OS an operating system by Google that is built for the way we live today. It comes with built-in virus protection, updates automatically\*, boots up in seconds and continues to stay fast over time. (\*Internet connection is required).
- All the Google apps you know and love come standard on every Chromebook, which means you can edit, download, and convert Microsoft Office files in Google Docs, Sheets and Slides.
- With the Google Play Store, you can access a rich library of apps, games, music, movies, TV, books, magazines, and more, all from your Chromebook.
- Chromebooks come with built-in storage for offline access to your most important files and an additional 100GB of Google Drive space to ensure that all of your files are backed up automatically.
- 15.6" Full HD Display, Intel Pentium N4200, Aluminum Cover, 180 Degree Lay Flat Design, Up to 12-hours Battery Life
- > See more product details



# Uh Oh



### **Repaired by ASUS Free of Charge**

# Auto Update Expiration (AUE)

- When a device reaches the AUE date, it means that automatic software updates from Google are no longer guaranteed
- This will be at least 6.5 years from launch of the hardware platform
- Refer to this web site for details:

<u>https://support.google.com/chrome/a/answer/6220366?hl=en</u>

# Other Chrome OS Devices

# Chromebox







#### Sponsored () ASUS CHROMEBOX 3-N017U Mini PC with 8GB Memory and Carbon Fiber (Blue)

by Mobile Computing Solutions

\$299<sup>99</sup>

FREE Shipping on eligible orders Only 5 left in stock - order soon.



Amazon's Choice



#### ASUS CHROMEBOX 3-N017U Mini PC with Intel Celeron, 4K UHD Graphics and Power Over Type C Port, Star Gray

by Asus

\$231<sup>55</sup> **vprime** | FREE One-Day FREE Delivery by **Tomorrow, Jan 16** 

More Buying Choices \$197.45 (42 used & new offers)



Save \$20 | Buy a PC + Microsoft Office See Details

Product Features ... CHROMEBOX 3-N017U Features an Intel Celeron 3865U Processor with 4GB ...

#### ASUS CHROMEBOX 3-N017U Mini PC with 8GB Memory

by Mobile Computing Solutions

\$269<sup>99</sup> vprime | FREE One-Day FREE Delivery by Tomorrow, Jan 16

More Buying Choices \$199.00 (4 used & new offers)



Product Features ... CHROMEBOX 3-N017U Features an Intel Celeron 3865U Processor with 8GB ...



# Chromebit



#### ASUS CHROMEBIT CS10 Stick-Desktop PC with RockChip 3288-C 2 GB LPDDR3L 16 GB eMMC Google Chrome OS

by Asus

★★★★★ ≤ 538 customer reviews | 252 answered questions

Price: \$85.36 </ prime | FREE One-Day

Get \$70 off instantly: Pay \$15.36 upon approval for the Amazon Prime Rewards Visa Card.

Save \$20 | Buy a PC + Microsoft Office 1 Applicable Promotion \*

Color: BLACK

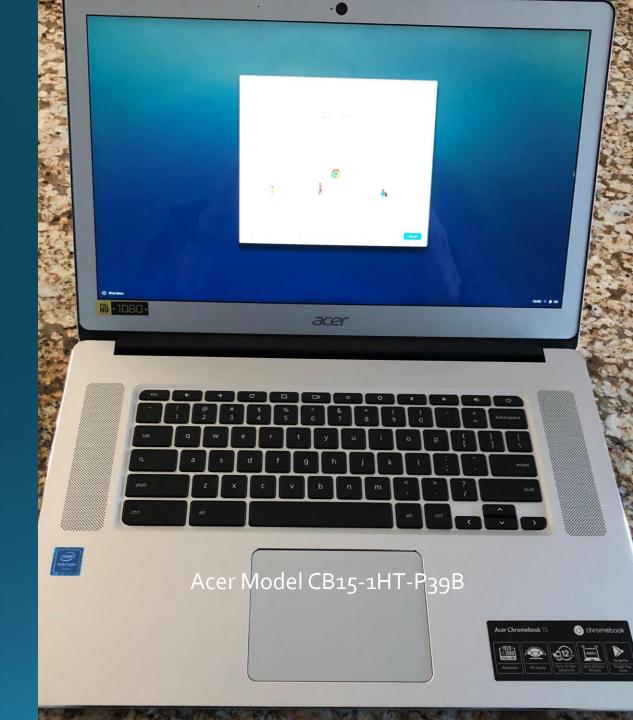
\$85 36 9 from

# **New Chromebook Setup**

- Unbox and Charge Battery
- Connect Mouse (Optional)
- Connect to Internet
- Enter Google Account Info
- Read Basic Operation Info (or not)
- Ready for Use

### Chromebook Setup

- Plug in and charge battery
- Open cover



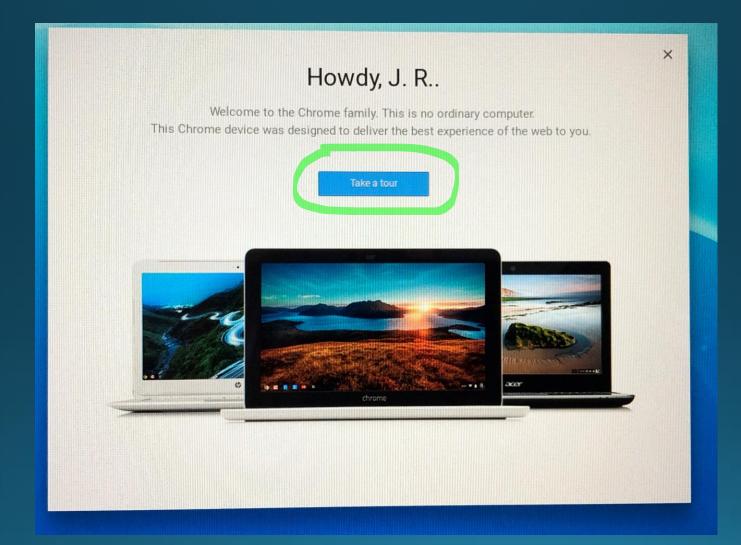
## Connect to a Network

÷	•
Co	onnect to network
To re	estore your data, you need an Internet connection.
•	Knobs59
	Knobs59_5G
₹.	Claire
₩.	VeronicasView
₩.	DIRECT-f2-HP M277 LaserJet
₩.	CalleAzulow
-	Dhilling
€ Back	Next →

## Sign in to Google Account

Email or phone	
Forgot email?	
More options	Next

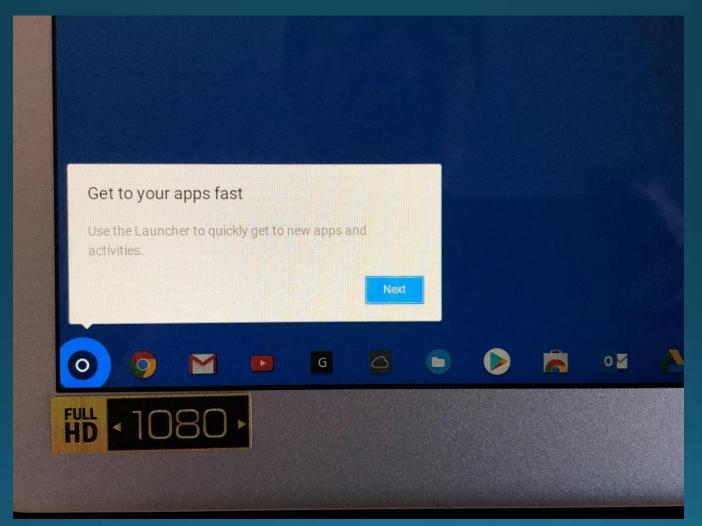
### **Ready to Use – Tour is Optional**



#### Launcher – Lower Left Corner



## Launcher Enlarged



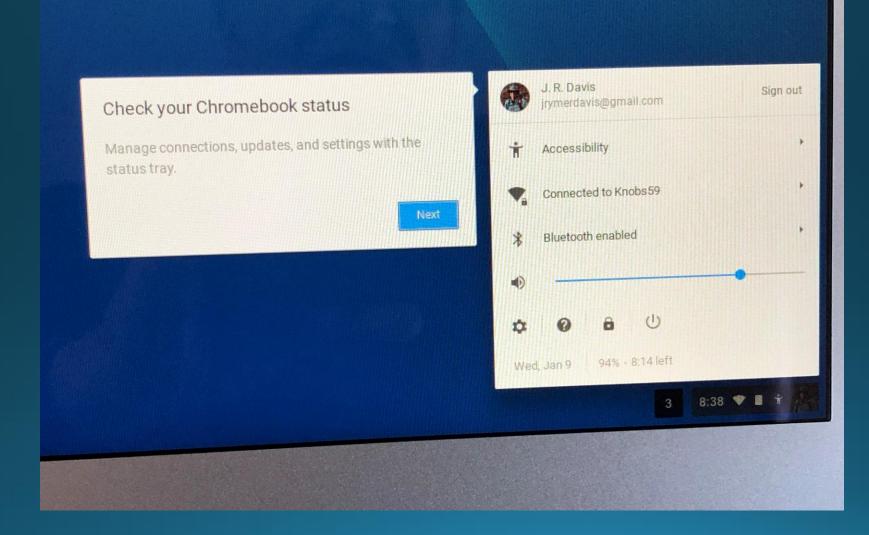
## The Shelf – App Launcher Shortcuts



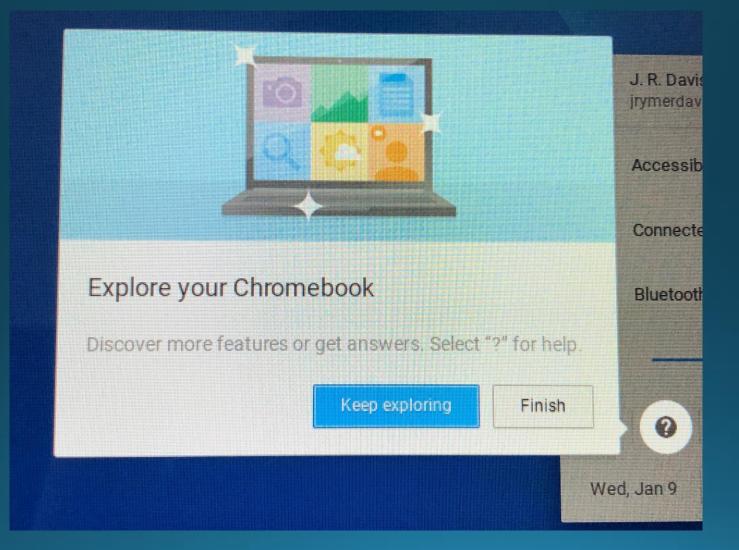
## Status Tray – Lower Right Corner



## **Status Tray - Enlarged**



### End of Short Tour – Option to Explore More



# For More Info on Chrome Devices

- Chromebook and Chromebox in PC Workshop
- Special Interest Groups (Classroom)
- Lynda.com Search on "Chrome OS"
- YouTube Search on "Chromebooks"
  - Example:
  - 10 Things You Need to Know about Chromebook 13 Min. https://www.youtube.com/watch?v=yTGs-CekbhY
- Other Websites
  - Chromebook Google Official Website: https://www.google.com/chromebook/ Chromebook for Seniors: http://cb4s.net/

#### If these images remind you of your computer,



#### You might want to consider a Chromebook