# Google for Education

# Selecting the right Chromebook for your school, staff and students











This document walks you through four steps to help you choose the right Chromebook:



Identify the primary use case, or how the device will be used.



Map out the device specifications required for these use cases.



Make recommendations for devices that meet these needs.



Compare across the device ecosystem and find the right device.

# Finding the right Chromebook





#### **Basic Classroom Use**



## **Learning Anywhere**



#### **Advanced Use**

#### **Shared student devices**

Web browsing

Email

Google Workspace or browser based classwork

Assignments and testing

#### Recommended software/apps

Google Workspace <u>for</u> <u>Education</u>

#### Minimum system requirements

RAM: 4GB

# Classroom and distance learning devices

Supports multiple browser tabs, Google Workspace, **concurrently** with video conferencing with 15+ participants

#### Recommended software/apps

Google Workspace <u>for</u> <u>Education</u>

Google Meet/Classroom

**Zoom** 

#### Minimum system requirements

RAM: 4GB CPU:

- Intel: N4020 /4100 /4120 /4500 /5000 /5100/6000
- AMD: Athlon Silver 3050C/Athlon Gold 3150C
- MTK: 8183, 8192
- QC:7c

# Teachers, staff, higher education, high school devices

Recommended for heavy workloads including content creation/editing, coding, running apps in virtualized environments Supports heavy multitasking

Supports heavy multitasking (large video calls with 15+ participants, multiple browser tabs, Google Workspace, external monitors/displays)

#### Recommended software/apps

VC/Comms: Google

Meet/Classroom, Zoom, Cisco
Webex, RingCentral, Slack and

**VDI**: Citrix, VMware, Parallels

Coding: Linux

more

Print: Papercut, Canon, HP Print,

PrinterLogic, Ricoh

**Productivity**: Google Workspace <u>for Education</u>

#### Minimum system requirements

RAM: 8GB

CPU:

- Intel: Fan i3, i5, i7,
   Fanless i5\*, i7
- AMD: Ryzen 3, 5, 7

<sup>\*</sup>Fanless i3 devices can support select use cases such as VDI

# Finding the right device

In the following pages you can find a list of devices organized by manufacturer. The tables above should help you identify the specifications your customer needs. Find the right device that matches their required specs and suits their needs.

Some configurations may only be available in select markets. Please contact your OEM representative regarding the availability of specific devices and configurations. We will update with additional devices twice per year.

Devices marked in the segment to the right can be leveraged for those to the left but not vice versa. Example - Devices marked For Advanced Use will be able to handle all the workloads in the segments to the left e.g., large video calls concurrently with other advanced use cases such as virtualization, coding. However, the devices marked as 'Basic Classroom Use' may not be able to optimally support large video calls with 15+ participants.



#### **AUE: Auto update expiration**

You can find information about Auto update expiration for your devices <u>here</u>. Devices listed on the following pages have AUE of 2026 or more



#### Zero-touch enrollment

For the most updated list of devices enabled for zero-touch enrollment, reference <u>here</u>



#### **Devices that support Parallels**

The recommended hardware specifications for Parallels are available <u>here</u>. Devices eligible for Parallels is available to reference <u>here</u>



#### Connected devices

Devices with LTE/5G SKUs have been marked with an icon



#### Supported peripherals

Works With Chromebook is a peripherals certification program ensuring compatibility across all makes of Chromebook devices. Here is the list of certified peripherals across various categories including Headsets, webcams, mice, external storage, cables & adapters, wall chargers and others.







## **Basic Classroom Use**

2

# **Learning Anywhere**



### **Advanced Use**

CB 311 (C733) [N4000, 4GB]

CB 314 (C933) [N4000, 4GB]

CB Spin 511 (R752) [N4000, 4/8GB]

CB 311 (C733) [N4020/4100/4120, 4GB]

CB 314 (C933) [N4020/4120/PQCN5030, 4/8GB]

CB Spin 511 (R752) [N4020/4120, 4/8GB] CB Spin 713 (CP713) [i3/i5/i7, 8/16GB] (Aust only) WiFi6

Some configurations may only be available in select markets. Please contact your OEM representative regarding the availability of specific devices and configurations. We will update with additional devices as they launch. Devices marked in the tiers on the right can be leveraged for those on the left but not vice versa.



Denotes devices that have an LTE/5G SKU

WiFi6 Denotes devices that have WiFi6 enabled SKU







## **Basic Classroom Use**

# 2

# **Learning Anywhere**



## Advanced Use

None

C204 [N4020, 4GB]

Flip C214 [N4020, 4GB]

C403 [N3350, 4G]

C423 [N3350, 4G]

C433 [Fanless i3, 8GB]

CM3000DVA [MT8183/4G]

C433 [Fanless i5, 8GB]

C436FA [i3/i5/i7, 8GB] WiFi6

Chromebox 4 [i3/i5/i7, 8/16GB] WiFi6

Some configurations may only be available in select markets. Please contact your OEM representative regarding the availability of specific devices and configurations. We will update with additional devices as they launch. Devices marked in the tiers on the right can be leveraged for those on the left but not vice versa.

WiFi6 Denotes devices that have WiFi6 enabled SKU







## **Basic Classroom Use**

2

# **Learning Anywhere**



## **Advanced Use**

CB 11A G9 [MT8183, 4/8GB]

CB 11 G9 [N5100/N4500, 4/8GB] WiFi6

CB 11A G9 [MT8183, 4/8GB]

CB 14 G7 [N5100/N5400, 4/8GB] WiFi6

CB X360 11 MK G3 [MT8183, 4/8GB] WiFi6

CB X360 11 G4 [N4500, 4/8GB]

Pro c640 [i3/i5/i7, 8/16GB] WiFi6

Pro c645

[Ryzen 3/5/7, 8/16GB] WiFi6

Some configurations may only be available in select markets. Please contact your OEM representative regarding the availability of specific devices and configurations. We will update with additional devices as they launch. Devices marked in the tiers on the right can be leveraged for those on the left but not vice versa.



Denotes devices that have an LTE SKU

WiFi6 Denotes devices that have WiFi6 enabled SKU

# How to make videoconferencing work better on Basic Classroom Devices

While not all devices are <u>recommended</u> for distance learning, we recognize there are situations where devices not recommended will need to be used for distance learning. This guide provides resources for understanding which devices those are and how to make sure that students and teachers have the tools to get the most out of these devices when they need to be used for video conferencing.





# How can I tell if I have a Basic Classroom Device?

In order to find out which type of Chrome OS device you have, please refer to our device-selection <u>guide</u> where you'll see a detailed view of all our Education device types and capabilities.

What can I do to improve my video call performance?



On video-call apps like Meet & Zoom we recommend the following

- Livestream instead of joining live to improve device performance
  - To keep things interactive, you can use Slides Q&A for engagement while livestreaming. Or, pre-record a lesson and then send it out afterwards (Meet) (Zoom)
- Virtual backgrounds are fun, but they consume significant CPU. Turning off virtual backgrounds will help improve video performance, especially in larger meetings (Meet) (Zoom)
- If device performance is still not acceptable, consider askings users to turn their camera off temporarily (Meet) (Zoom)
- If needed, you can also ask Admins to restrict virtual backgrounds (Meet) (Zoom)



- Update to the latest version of Chrome OS
  - Go to chrome://version and check the device listed as part of the "Firmware Version"
- Reduce the number of open tabs and apps (especially videos/games) to avoid spreading your CPU usage. You should see incremental improvement as you close additional tabs.
- Toggle off Chrome Extensions, especially those that interact with Google Meet
- Internet/Connectivity & Bandwidth:
  - Your home internet might not be as reliable as you think. Cable internet can get slowed down by other users (entertainment streaming, etc.).
  - Run a <u>speed test</u> to make sure your internet is stable. Make sure you have at least 3.2 Mbps uplink and downlink
- Limit Meet bandwidth usage for users in a specific organizational unit by setting the default video quality in Google Admin console.

# How to make videoconferencing work better on Basic Classroom Devices





Devices/ Miscellaneous tips

- If possible, <u>upgrade to a Learning Anywhere device</u>
- Ventilation use your Chromebook on a hard surface like a desk or countertop to keep it well ventilated, especially if you have a fanless device. Your Chromebook's performance may degrade if it overheats. Cushioned surfaces, like a sofa or pillow, keep heat in and prevent the Chromebook from cooling off.
- Charging as much as possible, avoid charging the laptop while you are in a video call (this can also affect device temperature since charging the battery generates heat, which may lead to additional performance impact).



Additional help for families

- The <u>Guardian's Guide to Google Meet</u> contains an overview of this specific tool, why it was chosen, and how students use it.
- The Teacher Center has the <u>Tech Toolkit</u> for educators to use in understanding how to use Google tools to communicate more effectively with families.
- <u>Tech toolkit video for families and guardians: Google Meet</u> Google Innovator and GEG leader, Lesleigh Altmann, walks through Google Meet and what Families and Guardians need to know.
- For more information about Meet and the work we're doing to help families, parents, and guardians, please visit our blogs outlined below:
  - A guide to Google Meet for parents and guardians
  - How we're improving Meet's performance on Chromebooks

