Supporting device needs in K-12 Education

Empower every learner and educator in a blended (classroom and virtual) learning experience with **Microsoft Surface for Education**

Modern device strategy for K-12 Education

Students and educators are adapting to a blended (classroom + virtual) learning experience. An increased dependency on technology for education has forced schools to update hardware requirements and accelerated their device refresh plans and schedules.

As part of a digital transformation journey, Downe House School in UK chose to take a 1:1 approach to rolling out Microsoft Surface devices for the entire staff and student body. It also deployed Microsoft 365 and Microsoft Azure. The solution fulfilled the school's vision of enabling teachers to work seamlessly across campus. Each class had a dedicated Microsoft Teams site and teachers standardized on setting all homework through the app. During the COVID pandemic, the school was able to easily shift to remote learning.

Schools like Downe House School are using Surface and Microsoft 365 to develop more creative lesson plans and have won back time in many ways such as creating lesson plans and marking up work. Schools are realizing additional benefits such as improvements in student engagement, reduced risk of security breaches, deployment cost reductions, and reduced support effort.

> **We chose Microsoft Surface and Microsoft 365 and it's been a huge privilege for me to see how the technology is transforming our teaching. I've seen some wonderful lessons. There's been a great increase in collaboration and sharing of good practice amongst staff and pupils, in the classroom and beyond.**
>
> *- Emma McKendrick, Headteacher,*
> *Downe House School*

The Surface family continues a tradition of Microsoft innovation

Microsoft Surface devices set the standard for premium devices in the PC industry. Microsoft has elevated product craftsmanship with beautiful designs and high-end components. Microsoft has also raised the bar on security with a chip-to-cloud security solution and seamless device management down to the firmware.

This leadership is built on a long history of Microsoft innovation in the technology industry. Microsoft's end-to-end, integrated portfolio of cloud solutions—Microsoft 365, Dynamics 365, and Azure, along with Microsoft Power Platform—is built on a foundation of security and privacy and helps organizations in every industry build resilience and achieve more.

Innovative technology engages and inspires students and teachers, delivering opportunities with modern devices and tools that closely align with the new blended (classroom + virtual) learning experience.

Portfolio Diversity

Microsoft has been creating new categories of hardware to support Education requirements. For example, lightweight 2-in-1 devices feature tablet-to-laptop flexibility, combining the power of a laptop with the portability and touch interactions of a tablet. The new Surface Laptop SE is a high value solution at a low-end price point, delivering capabilities that meet the requirements of most students.

Microsoft also innovates on traditional design such as laptops with fixed or detachable keyboards that offer the power required for education with the flexibility to bring the device home and power for the most demanding applications and beautiful graphics.

Hardware and peripherals

Meet face-to-face through 1080p video using crisp PixelSense displays, Omnisonic speakers, and far-field mics that bring everyone together in realistic real-time detail, for more personal-feeling interactions and stronger collaboration. Searching beyond the keyboard and mouse inspire natural interactions such as touch, voice, ink, Surface Pen,* and Surface Dial* to capture creative ideas. Expanding beyond the PC to large-screen devices built for teams, the Surface Hub is another new category of device that transforms any space into a team learning space and interactive whiteboard.

2-in-1 devices

Go
The lightest
Surface 2-in-1

Pro
The iconic Surface 2-in-1

Laptops

Laptop SE
The most affordable Surface, designed for primary and secondary students

Laptop Go
An exceptional value laptop

Laptop
The perfect everyday laptop

Laptop Studio
Our most powerful laptop

Meeting devices

Hub
Digital whiteboard, meetings platform, and collaborative computing device.

Deliver engaging learning opportunities

Educators, teachers

With an increased focus on the digital learning experience and blended (classroom + virtual) learning, educators depend on technology and devices to create engaging learning opportunities and establish new ways of working and connecting with students.

Educators face challenges:

- Deliver learning that keeps students engaged in both classrooms and distance learning
- Optimize classroom time and improve the digital learning experience
- Protect students' and educators' personal data

Surface helps educators:

- **Plan exciting, interactive lessons in less time**. Experiment with digital storytelling. Apps like Whiteboard and Flipgrid help push the boundaries of the digital classroom

- Surface ink- and touch-capable devices **free up teachers' and administrators' time** and created better student outcomes. Bring 3D subjects to life with the Surface HD PixelSense touchscreen and Paint 3D

- **Enable remote engagement** with HD cameras, Omnisonic speakers and Studio Mics to provide crystal-clear video and audio, helping every teacher and student be seen and heard clearly during virtual class sessions

- **Provide highly secure** digital classroom experiences

For educators, we recommend:

Mobile productivity

Choose Surface Pro 8
Ultra-light and versatile power

Work uninterrupted with tablet-to-laptop versatility, extended battery life,[1] and optional LTE Advanced.[2] Portable enough to take anywhere starting at just 1.96 pounds,[3] yet powerful enough to multitask with 11th Gen Intel® Core™ processors. Share in stunning detail with 11% larger PixelSense™ touchscreen than previous Pro. Write up reports fast and efficiently with a laptop-class keyboard and a pen[4] that's charged and always within reach.

Learn More >

Do it all

Choose Surface Laptop 4
Style, speed, and performance

Get more multitasking power and enable better graphics to run the professional-grade apps you depend on, fueled by your choice of 11th Gen Intel® Core™ or AMD Ryzen™ Microsoft Surface Edition processors. Immersive sound, and longer battery life[5] keep you in the flow— all within our signature ultra-slim design and 13.5" and 15" touchscreens. Perfect for teachers who want to get it all done in a thin, light, and elegant design.

Learn More >

Cutting-edge design

Choose Surface Laptop Studio
Super light and portable

Set your imagination free on the most powerful Surface Laptop yet with quad-core powered 11th-Gen Intel® Core™ H Series processors. Flex your creative muscle on the sleek 14.4" PixelSense touchscreen,[4] making seamless transitions from laptop to entertainment-ready stage to portable creative canvas, complete with built-in Slim Pen storage and charging. Enjoy uniform, true-to-life color and contrast and the best sound of any Surface Laptop.

Learn More >

State-of-the-art collaboration

Choose Surface Hub 2S
Teamwork without boundaries

Enable remote learning with a modern, all-in-one collaborative canvas and Microsoft Teams-certified meetings platform. Make any space a learning space with a large screen device that is mobile* and lightweight. Teach onsite and virtual students simultaneously with 4K Camera[6] and front-facing speakers. Brainstorm teaching plans with peers using the Surface Hub 2S Pen[6] and Whiteboard in Microsoft Teams.*

Learn More >

Unlock every student's potential

Students
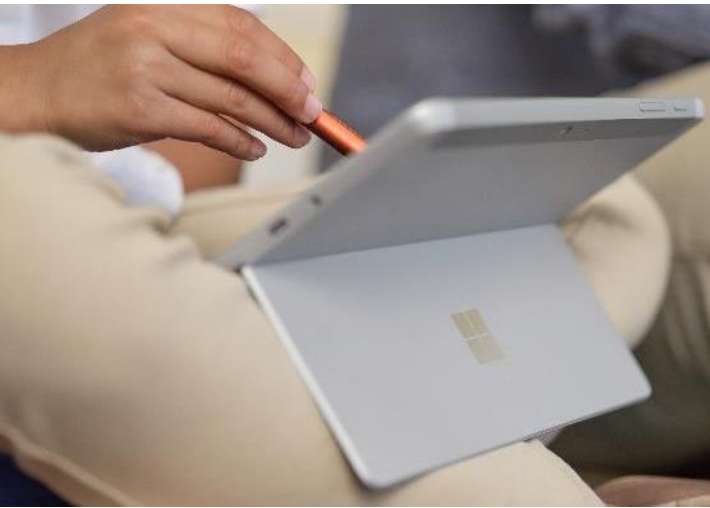
Improve student engagement and learning outcomes are the main goals of K-12 education. Students are adapting to a blended (classroom + virtual) learning experience and depend on devices and technology to be better prepared for higher education and the workforce.

Supporting students has its challenges:

- Ensuring they are prepared for the future

- Helping them stay engaged no matter the location

- Increasing inclusion, equity, and accessibility

- Protect students' personal data

Surface helps students:

- **Gain an early advantage** with the tools they will one day need in the modern workplace

- **Enable remote engagement** with HD cameras, Omnisonic speakers and Studio Mics to provide crystal-clear video and audio, helping every teacher and student be seen and heard clearly during virtual class sessions

- **Write and draw naturally** on select devices with Surface Pen* or Microsoft Classroom Pen 2*, aiding in fine motor control development

- Engage flexibly with versatile modes to **accommodate different learning styles** and information types. The new [Surface Adaptive Kit](#)* is a new accessibility package that makes it easier to use and navigate Surface devices and supports inclusiveness.

- Take advantage of **built-in accessibility tool** in Windows and Microsoft 365. Learning Tools like Immersive Reader improve comprehension. Microsoft 365 also includes tools like screen reading, speech-to-text, Seeing AI, Magnifier, live captions, translation, and more.

* Sold separately.

For students, we recommend:

Unlock learning

Choose Surface Go 3
Most affordable 2-in-1

Go faster than before with a choice of Intel® Pentium® or Core™ i3 Processor that can keep up with a full day of classes, providing up to 15% more speed than before.[1] Smallest, most portable Surface PC, starting at 1.2 lb.[2] Plus, 10.5" PixelSense™ display with 220 PPI resolution and 10-point multitouch, built for inking with digital pens. Seamless workflows with Windows 11 Pro, essential Microsoft 365* productivity apps like Teams, OneNote, and PowerPoint.

[Learn More >](#)

Ready, set, go anywhere

Choose Surface Laptop Go
The lightest Surface laptop

Balance performance, battery life, and beauty for simplicity without compromise and a seamless, secure computing experience. Run professional-grade software and essential apps with a 10th Gen Intel® Core™ Processor on a 12.4" PixelSense™ touchscreen display. Get back to work quickly with Fingerprint Power Button for biometric sign-in, plus fast, secure access to your files and data. Hear, be heard, and be seen in virtual meetings with radiant Omnisonic speakers, dual far-field Studio Mics, and a front-facing 720p HD camera.

[Learn More >](#)

Need more power and larger screen?

Choose Surface Pro 8
Ultra-light and versatile power

Work uninterrupted with 2-in-1 versatility, extended battery life,[6] and optional LTE Advanced.[7] Portable enough to take anywhere starting at just 1.96 pounds,[8] yet powerful enough to multitask with 11th Gen Intel® Core™ processors. Share in stunning detail with 11% larger PixelSense™ touchscreen than previous Pro. Write up reports fast and efficiently with a laptop-class keyboard and a pen[9] that's charged and always within reach.

[Learn More >](#)

Designed to meet any budget

Choose Surface Laptop SE
Most affordable Surface, designed for students

Help ensure everyday tasks load and run quickly, making opening apps and editing content a breeze with the modern processor and eMMC storage that Surface Laptop SE offers. Immersive screen, audio, and video with a brilliant 11.6" display, front-facing 720p HD camera, digital mic, and stereo speakers. Get connected with USB-CTM and USB-A ports for connecting to displays and docking stations or charging accessories, plus a tried and true 3.5mm audio jack.

[Learn More >](#)

Layered security with Microsoft Surface

Education organizations need to have secure devices, and Microsoft Surface devices provide advanced security out of the box with tightly integrated hardware, software, firmware and identity protection layers. Microsoft uses a layered security approach with chip-to-cloud security that includes chips and components designed and built by Microsoft, factory security protocols and inspections, Advanced Windows Security features enabled by default, and comprehensive remote management controls.

Hardware

All Surface devices use TPM 2.0 chips to implement a secure and sandboxed environment for storing passwords, PIN numbers, and certificates. Most Surface devices are also designed to use Windows Hello enabling secure biometric authentication and BitLocker for device encryption.

Firmware

Microsoft writes its own UEFI[1] and updates the UEFI through Windows Updates making the UEFI updates timely and easy to apply. The importance of quick UEFI updates became clear following a spate of speculative execution side-channel attack vulnerabilities, including Meltdown and Spectre.

Using Surface Enterprise Management Mode (SEMM) IT can enable or disable individual features as part of device setup.

This includes the cameras, Micro SD card, Bluetooth, LTE, and whether the computer can boot off a USB device. IT admins can also use SEMM to manage the device at the boot level with custom firmware controls. Using SEMM, Microsoft Intune for Education enables direct management of many Surface device settings, including Certificates, Update settings, Bitlocker, Device features, Email, VPN connections, Windows security baselines, and Wi-fi connections.

Operating System

Surface devices ship with advanced Windows 11 security features like Memory integrity, a virtualization-based security, enabled by default. The devices also ship with Microsoft Defender for Endpoint, Windows Defender Credential Guard, and Windows Defender Application Control enabled.

> **We require a device that will remain relevant as a foundational tool for years to come. It also must enable the wide-ranging predictive functions and security protocols we require for student safety. I believe we made the right choice with Surface Go 2.**
>
> *- Lakshmi Visvanathan: CIO,*
> Shelby County Schools

Microsoft Surface — Hardware — Firmware — Operating System — Cloud — ATTACKS

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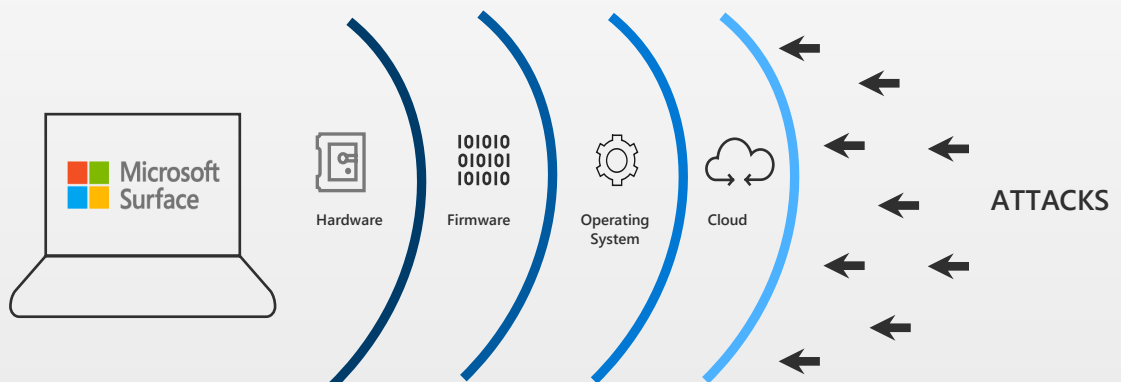
[1] Surface Go and Surface Go 2 use a third-party UEFI and do not support DFCI. DFCI is currently available for Surface Laptop SE, Surface Laptop Studio, Surface Pro 8, Surface Go 3, Surface Laptop 4, Surface Laptop Go, Surface Book 3, Surface Laptop 3, Surface Pro 7+, Surface Pro 7, and Surface Pro X.

Advanced Deployment and Management

IT teams need a modern approach to device management, one that seamlessly integrates all components, from the chip to the cloud. Surface has been designed with built-in support for simplified modern management of the entire device lifecycle.

Zero-Touch Deployment

Windows Autopilot automates all stages of the device lifecycle, both for IT and users. A Surface device can go straight from Microsoft to the end-user completely configured. Surface devices are purpose-built for zero-touch deployment and optimized to provide the most straightforward, friction-free, and powerful interoperability with the diverse collection of Microsoft 365 capabilities.

Management during use and retirement

Every Surface component, from firmware to Windows 11 policy settings, can be managed by Microsoft Intune for Education and updated via Windows Update for Business. Using Intune, IT can also wipe a device clean, either because it was lost or stolen or assigned to a different user. After the wipe, it is reset to the out-of-box experience, at which point proper credentials are once more required for set-up if the device is redeployed.

In addition, Surface includes purpose-built tools for diagnostics and tuning that can automatically fix issues, assist with troubleshooting, and optimize functionality from brightness control to battery usage. The Surface Diagnostic Toolkit for Business (SDT), for example, enables IT administrators to quickly investigate, troubleshoot, and resolve hardware, software, and firmware issues with Surface devices.

Surface also integrates into the Microsoft 365 security stack to detect vulnerabilities across the globe and automatically protect devices—even while the device is asleep. Surface devices implement a Modern Standby low-power state that allows the device to appear asleep, drawing very little power, but also listening for updates via Windows Update for Business and application data streams like email. This allows a Surface on battery power to achieve a long standby battery life while also staying up-to-date on application data, and automatic pushes of security updates even down to the UEFI.

The Yamaguchi Prefectural Board of Education is Japan's first educational organization to adopt cutting-edge technology—Microsoft Endpoint Manager and Azure AD Joined—and chose Surface devices, which are optimized for Windows Autopilot. Within just four months, they have successfully deployed 25,500 Surface devices [Go and Pro] for all high school students in Yamaguchi's prefecture.

Designed with inclusiveness and accessibility in mind

Accessible technology

There is no limit to what people can achieve when technology reflects the diversity of all who use it. Across Microsoft, we are dedicated to providing accessibility tools and features that help people achieve more at home, school, and work.

We believe that accessible technology is a fundamental building block that can unlock opportunities in every part of society. Our work starts by ensuring that Microsoft's own products are accessible by design, so that as we advance our features and functionality, we can help everyone across the spectrum of disability fully engage in learning and be more productive.

Adaptable, mobile devices

With Surface, accessibility is built into both the software and the device itself. Since many Surface devices offer flexible form factors, students can use the device in the way that works best for their needs. Devices can be held, perched on a desk, attached to a wheelchair, or laid flat. The premium audio-visual experience helps all students feel included and represented. The Surface Adaptive Kit* helps make the device even more accessible, with bump labels to identify keys and ports and opener support to make opening the lid and kickstand easier.

Built-in accessibility in Windows and Microsoft 365

At a software level, Windows and Microsoft 365 include a range of accessibility features, from Learning Tools like Immersive Reader to help improve comprehension for all students, to meeting features like live captions and translation, to other capabilities like screen reading, speech-to-text, Seeing AI, Magnifier, Ease of Access settings, and more.

Accessibility features in Microsoft 365:

Microsoft Teams Live Captions: View live captions and subtitles in up to six languages

Windows Ease of Access Center: Enable students and faculty to configure devices to meet their specific needs

Microsoft Editor: Bring out a student's best writer in more than 20 languages with the help of AI

Immersive Reader: Improve reading for students regardless of age or ability to build comprehension and encourage independent learning

Dictation: Use dictation to convert spoken words into text anywhere on your PC with built-in speech recognition

Math Assistant: Solve any equation, or display the step-by-step instructions guiding students to reach the solution on their own

Reflect: Support social-emotional learning with weekly check-ins that help faculty get insight into students' wellbeing over time

Communications Compliance: Detect offensive language, including potentially discriminating comments to foster a more inclusive environment

Supporting environmental sustainability

Microsoft is deeply concerned about the impact of its operations on the environment and works hard to limit it. As a company, Microsoft has been carbon neutral since 2014. Education organizations looking to reduce their environmental impact can take advantage of Microsoft's environmental efforts to reduce the carbon footprint of its devices and services.

Surface products reflect the people that make them and that use them. That's why Microsoft continues to set higher standards and goals to further reduce the environmental footprint of Surface products.

When designing Microsoft Surface devices, Microsoft focuses on three key areas of sustainability: material efficiency, reducing hazardous materials, and extending product life. Toward these ends, in 2020, Surface products achieved a 21%[1] reduction in packaging weight and a 25%[1] reduction in greenhouse gas emissions. Microsoft also reduced packing emissions by 48%[2] with the use of glassine paper to replace plastic, which also resulted in 95%[3] packaging recyclability by material.
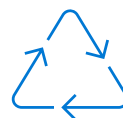
95%[*]
recyclability of Surface devices packaging.[3] Plus, average carbon emissions reduced by 48%[2] on new commercial packaging.

25%
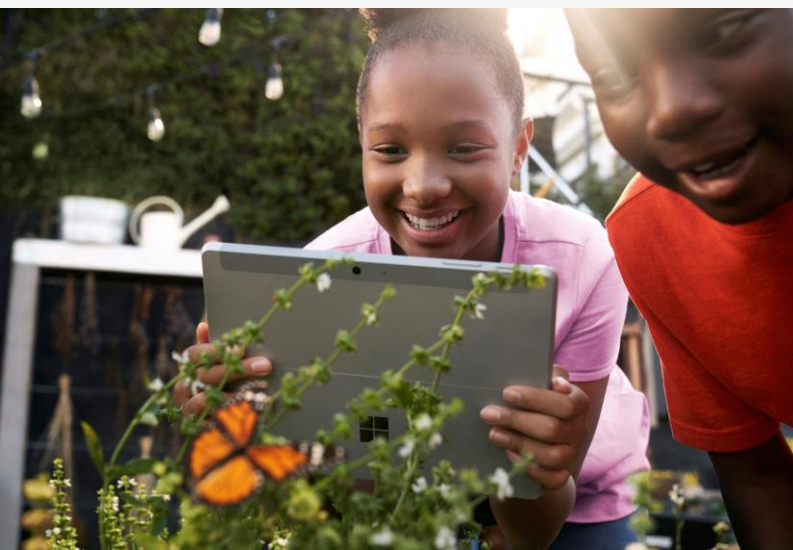Reduction in greenhouse gas emissions in FY20.[1]

91%[*^]
Improved recyclability of Surface Laptop 3 in FY20, making it one of the most recyclable devices on the market.[1]

21%
Reduction in packaging weight in FY20.[1]

[1] Microsoft Devices Sustainability Report 2020, page 21
[2] Microsoft Devices Sustainability Report 2020, page 26
[3] Microsoft Devices Sustainability Report 2020, page 66
* (w/w)
^ Measured using UL ECV 2789

Modern device strategy for K12 Education

By choosing Microsoft Surface, K12 education organizations can implement a device strategy that works in blended (classroom + virtual) learning experiences. With a variety of devices and price points that meet the needs of both educators and students, organizations can standardize and provide a premium experience through beautiful and inclusive design, advanced security and management, and a commitment to sustainable business practices.

❝ **We wanted a hybrid device. We felt that a two-in-one device like Surface Go with LTE Advanced would give our students the convenience of a tablet with laptop processing capability— the best of both worlds.** ❞

- Sakon Kieh, Director of Educational Technology, District of Columbia Public Schools

See which Surface devices are best for your blended learning experience.

Visit Surface for Education to learn more.