

Choosing the Right K-12 Computer Hardware

Computers for school need to provide the best support for a broad range of ages, grades, and activities. If you are thinking about upgrading a device for your students, your teachers, and staff, there are a variety of factors to consider that can impact daily learning and teaching, including performance, product types, connectivity, video and audio capabilities, security and manageability, and cost.



Performance

When selecting devices for students, teachers, or staff, start by evaluating the level of performance required for the types of activities they will be doing today and in the future.

- All students and teachers need devices that can support collaborative, video, and content sharing programs used in the classroom, for remote learning, and for home learning access. • Elementary school students will additionally need enough processing power to access and use digital content and educational, touch-based applications and, eventually, basic productivity tools for creating documents and simple presentations.
- Middle school students will need increased performance as they use their devices for more intensive and varied activities, including data analysis, computer programming, or multimedia content creation.
- Teachers and high school students need devices that can do all of this and have the processing power for increased multitasking and more-resource-intensive applications, like those required in advanced classes and electives such as engineering, data science, and graphic design or activities such as robotics and esports.



Computer Product Types

Desktops: High performance; customizable; have many options for monitors, printers, other devices.

Laptops: Small, portable, all in one design; built in rechargeable battery. Designed for productivity.

Chromebooks: Lower cost; require Google Chrome license; not as powerful or capable as laptops.

Tablets: Small and light, yet powerful; long battery life. Less memory; touchscreen interface only.



Other Device Considerations for School Computers

Compatibility: An ideal school computer is compatible with other peripherals, from headphones, displays, and external storage devices to interactive whiteboards and classroom document cameras.

Connectivity: Connectivity is essential for hybrid or remote learning environments. PCs and Chrome OS devices with onboard LTE can greatly benefit students who don't have access to internet at home.

Displays, Cameras, and Audio: PCs and Chrome OS devices have become critical communication tools for remote users. Image quality, especially in environments with varying light levels, is important for both live videoconferencing and for viewing on-screen content.

Security and Manageability: Keeping student, teacher, and school devices secure against viruses, cyberattacks, and bad actors is critical to protecting individual privacy and data and for preventing interruptions to learning.

Cost Considerations: Cost is always a consideration when investing in technology. As you think about how you, your students, or your staff will use a device, purchase a system configuration that offers you flexibility, scalability, and use over time. Source: Intel.com