

## Buying a laptop for school – how do I know what to pick?

Modern laptops come in all shapes and sizes. This document is designed to help you choose the right laptop when shopping for a machine for your daughter.

### The short version...

You will get the best experience picking a **Windows**-based computer with at least  
**4GB** of RAM - ideally **8GB**  
A **dual or quad core** CPU  
**256GB** of **solid-state storage**/memory

### Making sense of the specs

When looking at laptops online and in-store you will usually see the following specifications listed:

#### Operating System

The operating system is the software that controls the computer. Examples include Windows 10, macOS, and Chrome OS.

At LGGS, we use **Windows**-based devices, so it would be a good idea to buy a Windows computer, so that your daughter can get used to how it all works – particularly if she hasn't used one before.

#### CPU

The “brains” of the computer. Speed measured in Gigahertz (GHz) – higher number usually equals better performance - **look for at least 1GHz** – but generally any speed will suffice.

Sometimes the number of “cores” is listed – more CPU cores means your computer can run multiple calculations at the same time, which leads to a more responsive system. However, adding more cores leads to diminishing returns, as more cores usually means more heat generated and more power used.

There are two main brands of processor you will see – **Intel** and **AMD**.

Each brand has sub-brands of processor. From good, to better, to best:

**Intel:** Atom – Celeron – Pentium – Core i3 – Core i5 - Core i7 – Core i9

**AMD:** E series – A series - Ryzen 3 - Ryzen 5 - Ryzen 7 - Ryzen 9

If you are looking at an Intel machine the sweet spot would be **Pentium** to **Core i5**.

If you are looking at an AMD machine the sweet spot would be **A series** to **Ryzen 5**.

In either case 2-4 core machines will suffice; most software today will not make use of more than 6.

#### RAM (sometimes called “memory”)

RAM is used to store the programs and data you currently have open. Therefore, adding more RAM means you can have more programs open without your computer slowing down, making it feel more responsive. **Look for at least 4GB, ideally 8GB** if your budget can stretch to it.

#### Storage (confusingly, sometimes also called “memory”)

Modern computers use two types of storage medium – **hard disk drives** (HDDs) and **solid-state drives** (SSDs).

**HDDs** offer more storage compared to an equivalent-price SSD, but are quite slow, and prone to slowing down as they fill up with files.

**SSDs** are generally more expensive than HDDs but are much, much faster. “eMMC” SSD storage is slower than regular SSD storage, but still faster than a typical HDD.

The storage type, speed, and capacity you require depends on what you intend to install on the laptop, though it is worth remembering that your daughter will be using cloud storage, i.e. not saving everything on the device. With that in mind, a **256GB SSD** is probably the sweet spot for most people, providing a good amount of fast storage.

## Some recommendations

### AMD-based laptops

<p>HP Stream 14-cm0042na</p> 	<p>AMD A4 processor 4GB RAM 64GB SSD</p> <p>£249.99 on <a href="#">Amazon</a></p>
<p>ASUS VivoBook X412DA</p> 	<p>AMD Ryzen 3 processor 4GB RAM 128GB SSD</p> <p>£349.99 on <a href="#">Amazon</a></p>
<p>Huawei MateBook D 14 2020</p> 	<p>AMD Ryzen 5 processor 8GB RAM 256GB SSD</p> <p>£549.99 on <a href="#">Amazon</a></p>

### Intel-based laptops

<p>Lenovo IdeaPad 330s</p> 	<p>Intel Pentium Processor 4GB RAM 128GB SSD</p> <p>£349 on <a href="#">Amazon</a></p>
<p>Dell Inspiron 15 3000</p> 	<p>Intel Core i3 Processor 8GB RAM 256GB SSD</p> <p>£549.99 on <a href="#">Amazon</a></p>
<p>Dell Latitude 5480</p> 	<p>Intel Core i5 Processor 8GB RAM 128GB SSD</p> <p>£699.99 on <a href="#">Amazon</a></p>