

ORMISTON COLLEGE

ICT Services

Maximising Battery Life



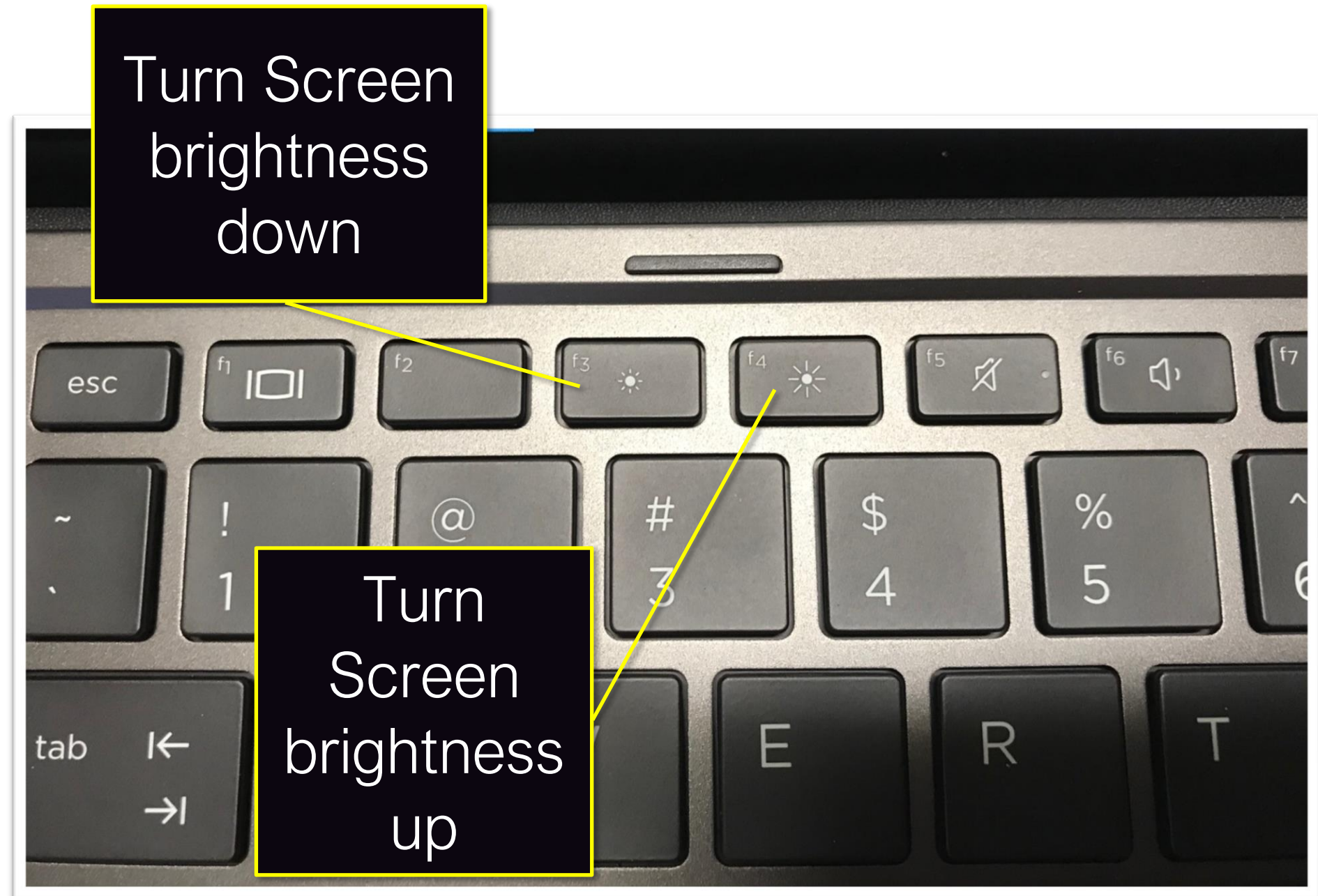
First some facts...

- Laptops will never last as long on battery as advertised. Manufacturers claims are based on unrealistic use. Instead, a typical laptop loaded with all the software required for you to do your work will have about 5 hours of battery life.
- Over time, a battery will start to wear, causing its total capacity to diminish. This can reduce battery life by approximately 20% over 3 years.
- New software and updates to current software which add more functionality will also reduce battery life.
- In general, the more 'stuff' on your laptop, the harder it has to work, which will reduce battery life



Reduce your screen brightness

- The brighter your screen, the less battery life your laptop has. Reducing your brightness, can gain as much as 20% extra battery life
- Surprisingly, most people can work with their brightness as low as 30% when they are inside
- Sunny/Rainy days and ambient light can impact how bright a laptop screen needs to be



Set Windows 10 Power Mode

This setting, adjusts how Windows throttles the Central Processing Unit (how fast the CPU should run) The faster it runs, the more power it uses. There are 4 modes available, below is some more info:

The image shows a Windows 10 desktop with the Battery settings window open. The battery level is at 33%. The power mode is set to 'Better battery'. The settings window has a slider between 'Best battery life' and 'Best performance'. Four callout boxes provide details about the modes: 'Better Battery Mode' (Best mode for Day-to-Day), 'Better Performance Mode' (Best mode for Creative Work), 'Best Performance Mode' (Best mode for Video Editing), and 'Battery Saver Mode' (Best mode when you urgently need a little more time). A red arrow points from the 'Better Battery Mode' box to the 'Best battery life' end of the slider.

Better Battery Mode: Best mode for Day-to-Day. CPU is more likely to scale back and slow down, to save battery. This is more than adequate for light OneNote, Internet and Office Work

Better Performance Mode: Best mode for Creative Work. CPU runs faster, at the cost of battery. Your battery will drain about 10% faster in this mode, compared to better battery mode.

Best Performance Mode: Best mode for Video Editing. CPU runs at its fastest, at the cost of battery. **Warning:** You may only get 1.5-2 hours of total battery runtime if you leave laptop in this mode

Battery Saver Mode: Best mode, when you urgently need a little more time Comes on automatically when there is only 20% battery left, extending your time by 30-40 minutes, but you can turn it on earlier to gain an extra 10% battery life overall. **Warning:** Stops OneNote and OneDrive from working correctly

33%

Power mode (on battery): Better battery

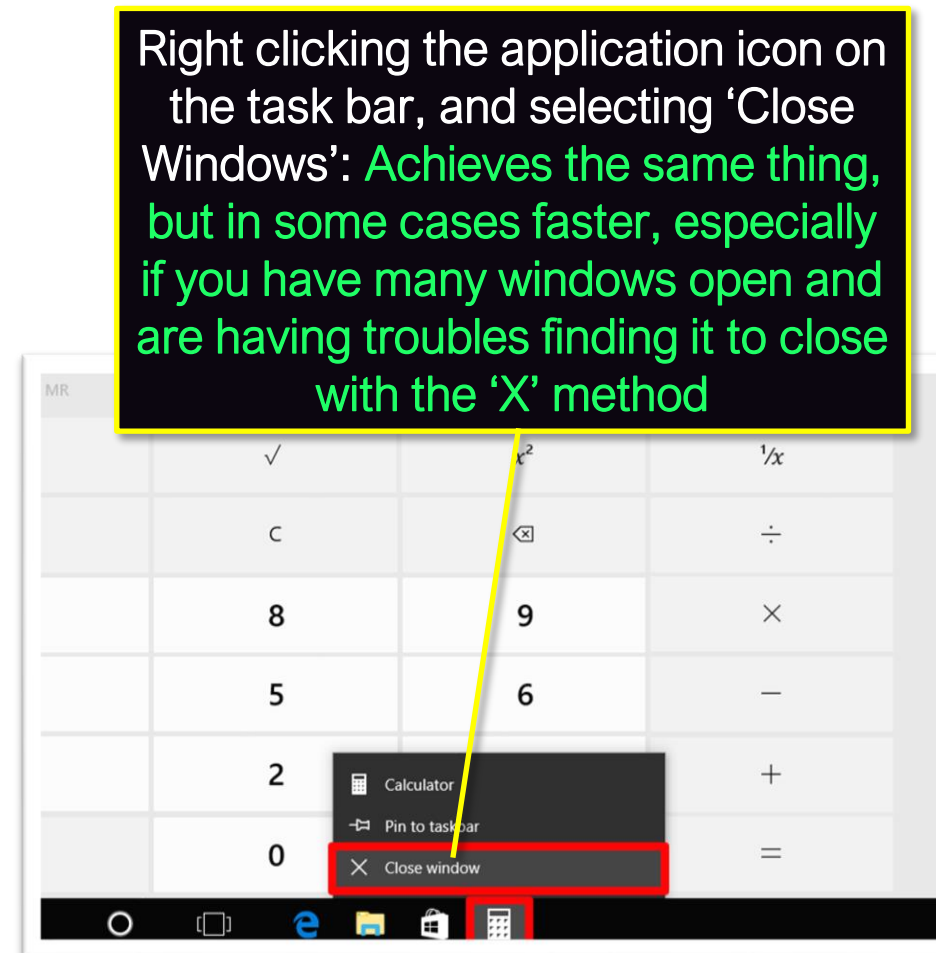
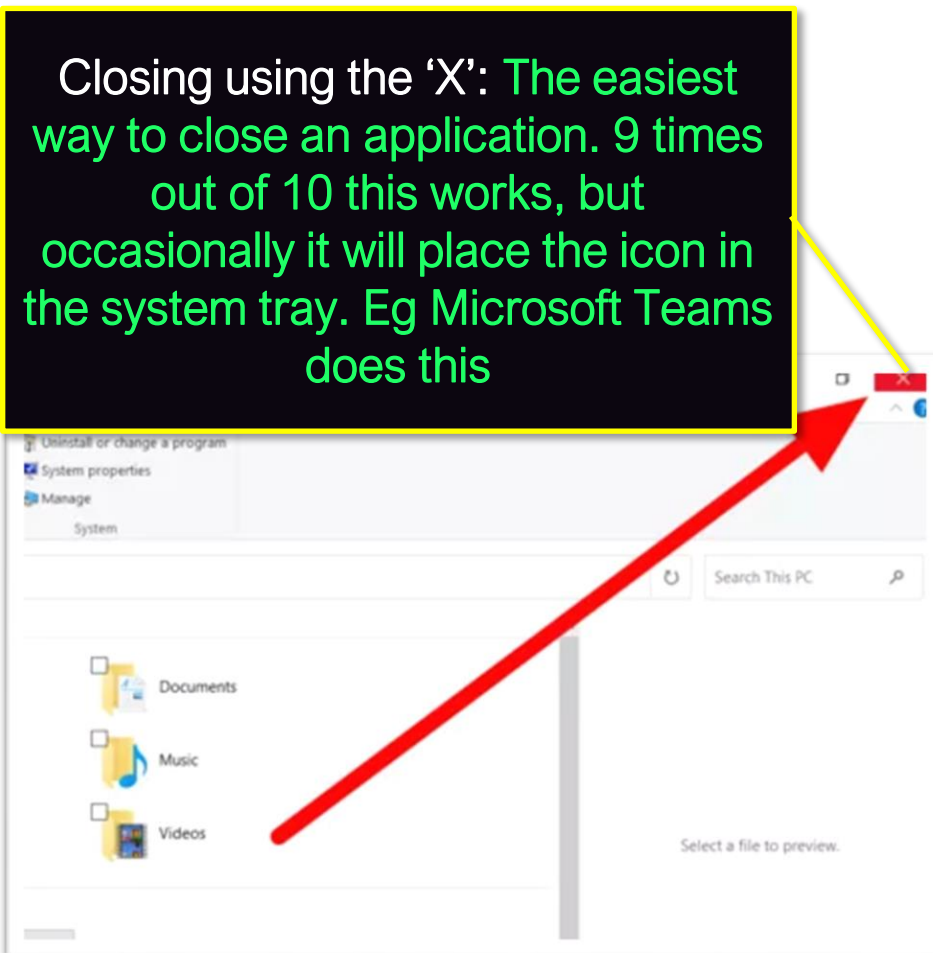
Best battery life Best performance

Battery settings

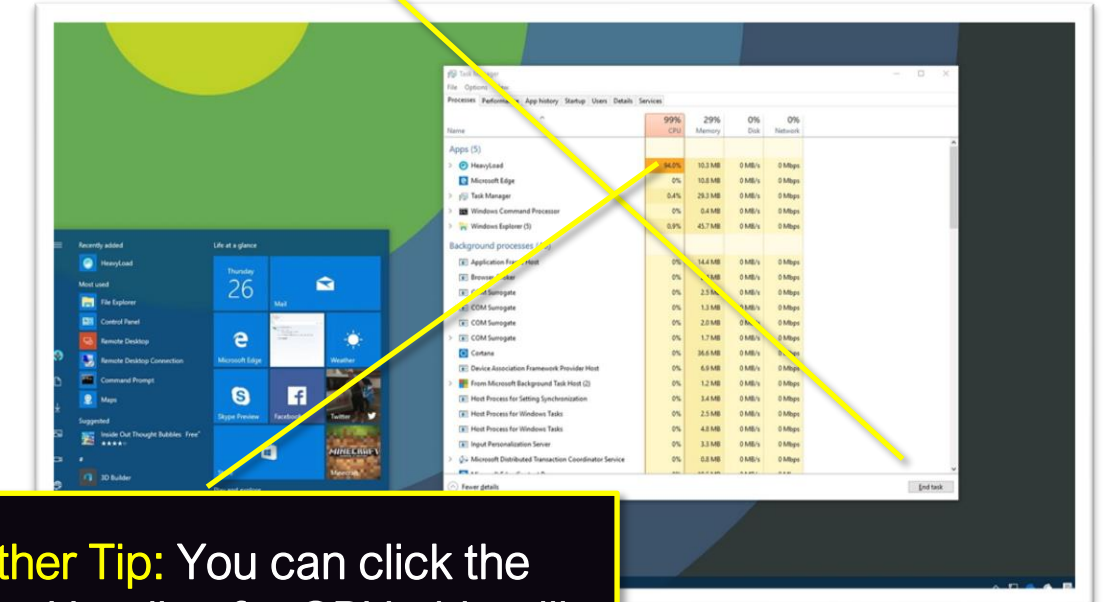
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Close Unnecessary Applications

The more applications that are running concurrently, the more work the CPU has to do. Closing applications, will not only improve battery life, but make the applications you do need with, faster as well.



Using the Task Manager: If your application has crashed or says 'Not Responding' for a long time, you can force an application to close using this method. To call up the Task Manager hold CTRL & SHIFT then ESC buttons at the same time



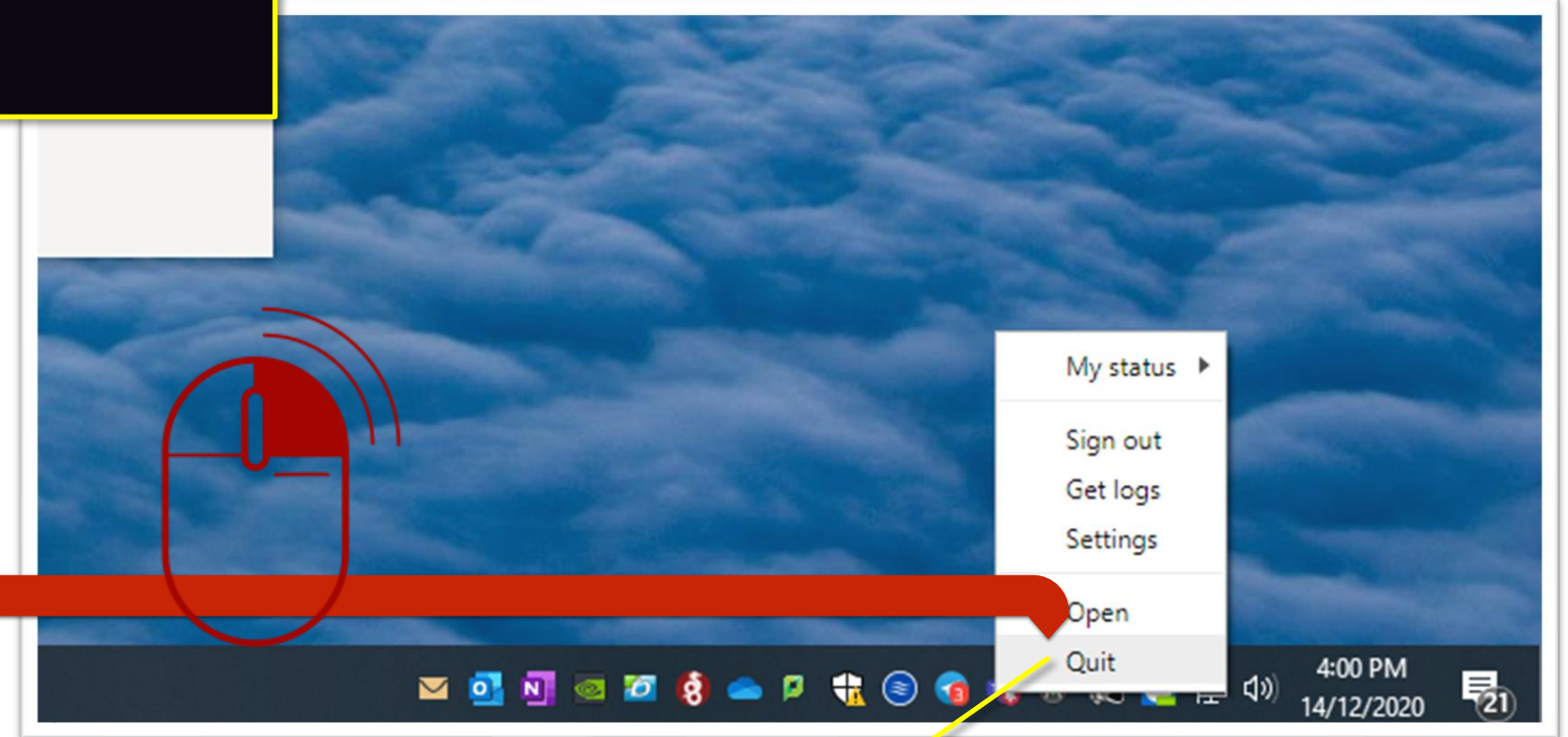
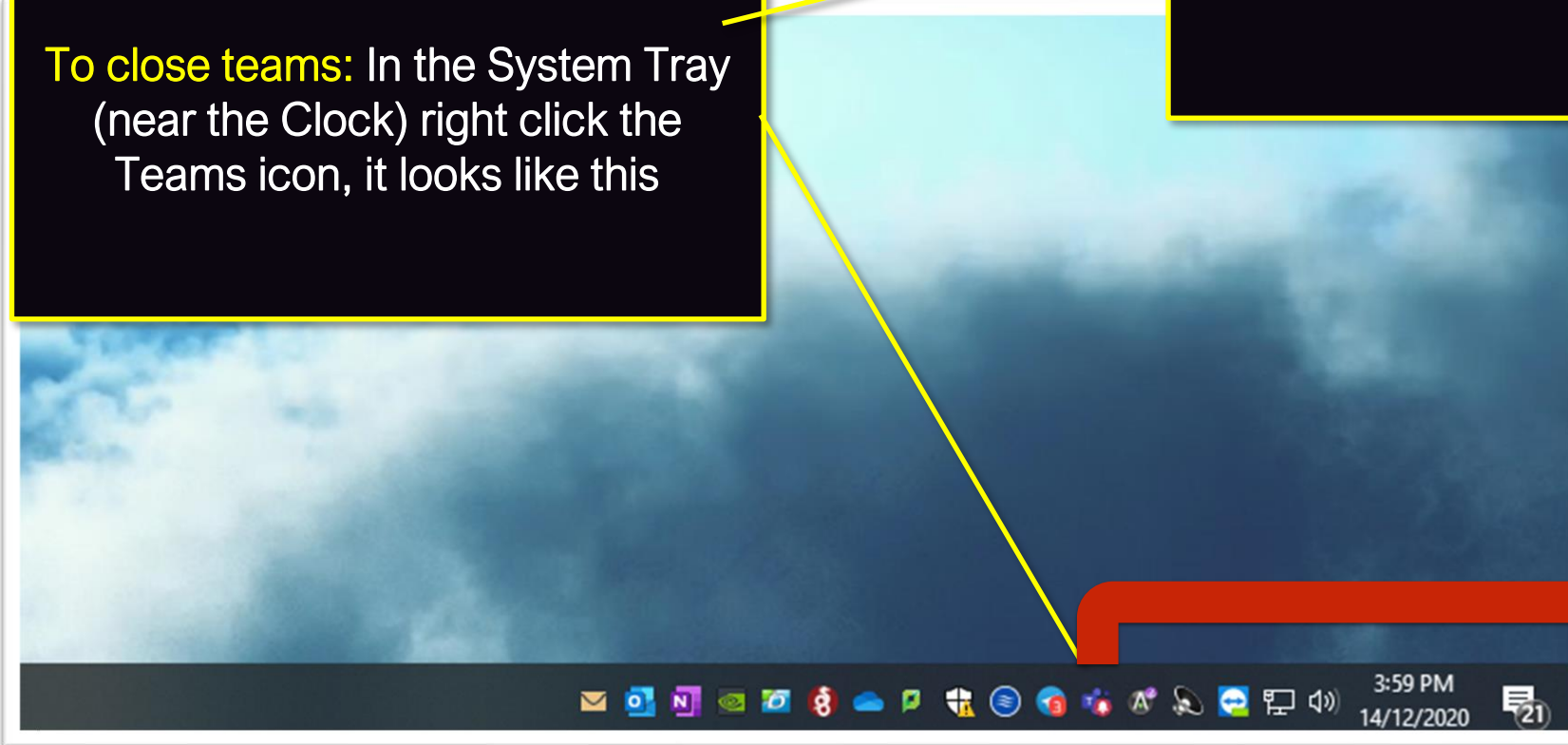
Another Tip: You can click the Column Heading for CPU, this will sort the running applications into a list, from there you can tell which app is using the most % of CPU, and thus using the most battery

Close Microsoft Teams if you don't need it

A laptop that leaves Microsoft teams running can lose as much as 30% battery life. This is because Teams will spend a lot of time, syncing and resyncing OneNote and other content in the background

To close teams: In the System Tray (near the Clock) right click the Teams icon, it looks like this

Closing Teams using the 'X': **Does not close teams.** Instead it leaves it running in the System Tray



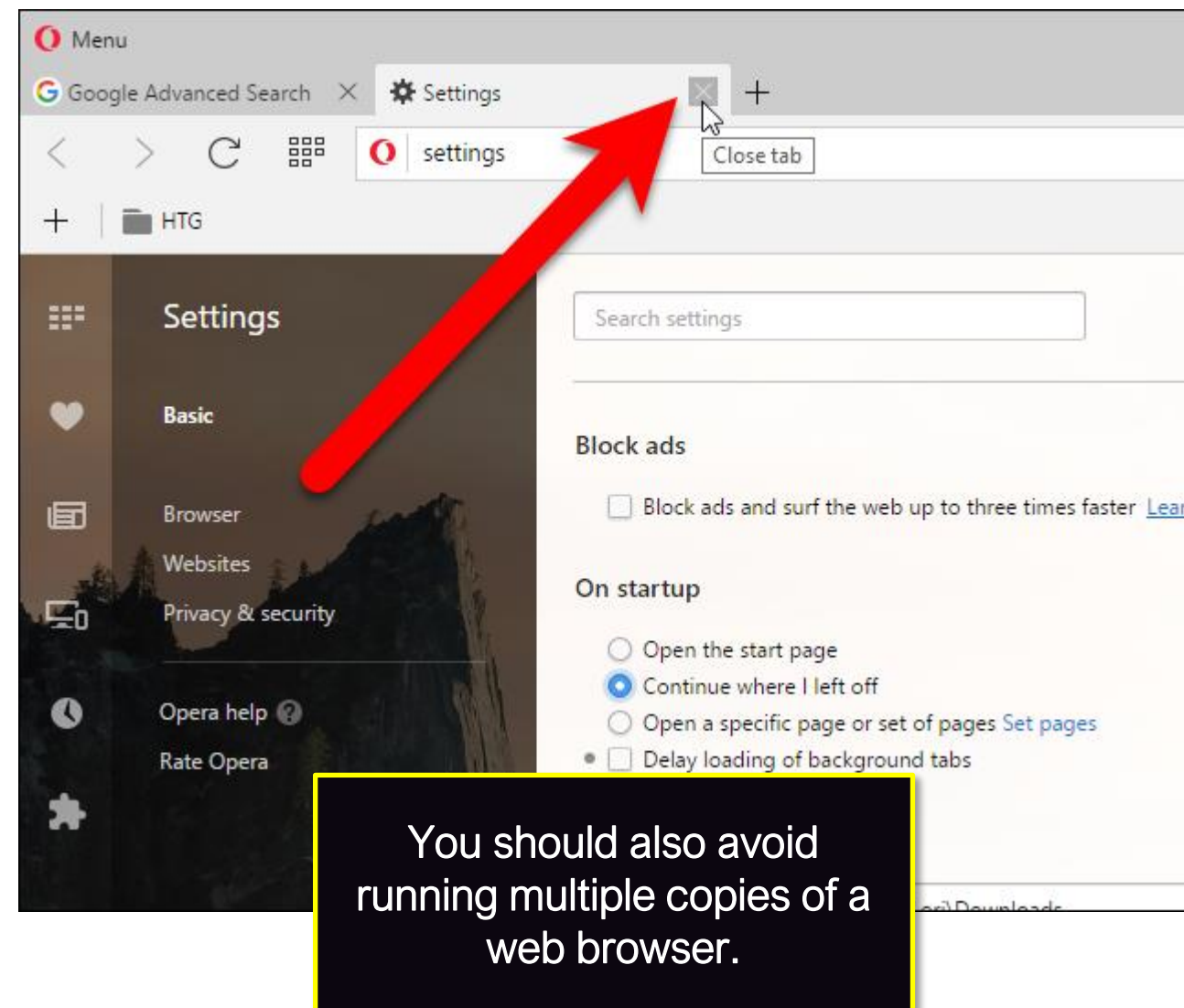
Depending on your status in Teams, the icon in the system tray can look different



Select 'Quit', this will properly close teams and save on battery life

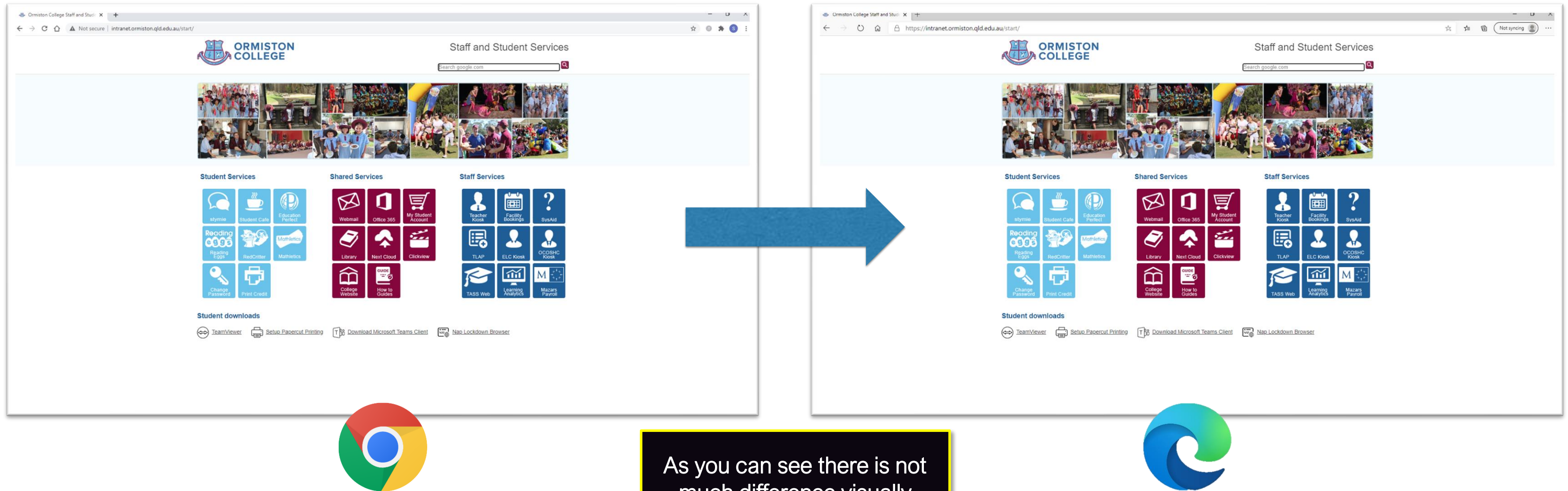
Close Web browser tabs no longer needed

Web browsers can consume a huge amount of memory and CPU resources refreshing Tabs in the background that you may no longer need.



Use Microsoft Edge, instead of Chrome

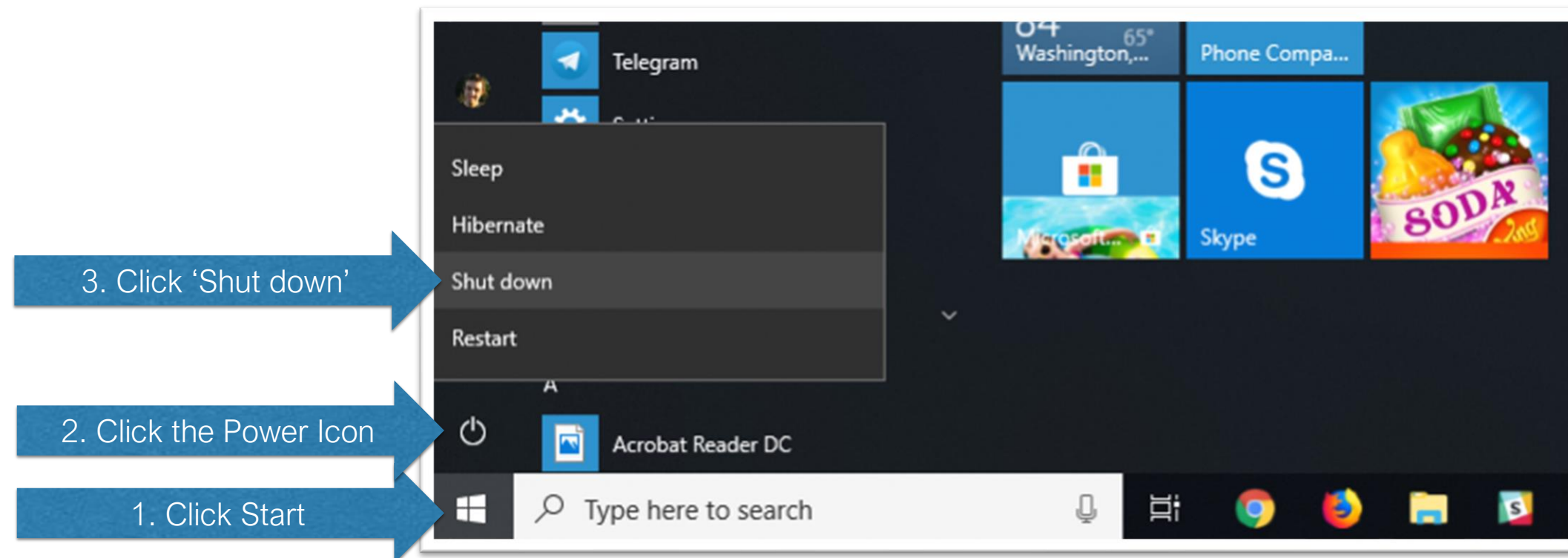
These days, both Web browsers use the same underlying technology, however [Microsoft have optimised Microsoft Edge](#) for Windows and thus you can gain 5-10% more battery life



As you can see there is not much difference visually between them

Shut down, instead of just 'closing the lid'

- When you close the lid, the laptop will go into 'sleep' mode. In sleep mode the laptop is actually still running, but in a reduced state. That is why sometimes a laptop can feel 'hot' when taken out of its bag.
- Instead, do a proper shutdown. This will fully power off the device and will save the most battery.



Charge your laptop in the CLI

- Your laptop is equipped with a 'Fast Charge' option, where 50% of your battery life can be restored within 30 minutes, making it a perfect time to charge your laptop in the school lunch hours.
- It is safe and secure, simply tap your ID Card at the terminal and a locker will open. Connect your device to the charger then close the locker. Return after 30 minutes to a laptop that should last you periods 7 & 8.
- If they are all full, you can still take your laptop to the ICT Helpdesk who can also charge your laptop for you



My laptop is always going flat quickly!

If you are not heavily using your laptop, and have followed the advice above, it could mean something is wrong:

- Your laptop could have a virus
- Your laptop's battery could be faulty or other parts inside
- An update to Windows either is causing issue, or your laptop needs an update to stop an issue
- The manufacturer of the device may of released updated Firmware which fixes issues.
- You may have a device connected via the USB ports that is malfunctioning

If you continue to have short battery life, you can take your laptop to the ICT Helpdesk for a 'Health Check' where Support Officers can troubleshoot and repair



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