



**WILLOUGHBY GIRLS HIGH SCHOOL**  
**INFORMATION AND COMMUNICATIONS TECHNOLOGY**  
**Minimum Suggested Laptop Specifications 2014-5**  
**parts marked with an asterisk \* are must haves (Compulsory)**

	Comp 1	Comp 2	Comp 3
Chipset	Haswell Chipset QM 87	QM87 Haswell	Intel Core i7
Processor	Core i5-4200U (1.6 GHz, 3M Cache)	Core i5-4200U (3M Cache, up to 2.60 GHz)	Core i7 (2.0GHz (Turbo Boost up to 3.2GHz), 6MB Cache)
Motherboard	4th Generation Intel CoreTM	Intel Core I, 4th generation	Intel
Screen size* (min 11")	<b>Dell HD+ (1600x900) Touch Display</b>	<b>14" HD+ (1600x900) Multitouch</b>	<b>15.4" Retina display, 2880x1800</b>
Memory (RAM)	8GB DDR3L	8GB RAM DDR3	16GB RAM DDR3L
Hard Drive (HDD)	500GB 7200RPM SATA	500 GB HDD, 7200rpm	256GB Flash Storage
Media Device	Built in 8X DVD+/-RW	None	None
Card Reader	Memory card reader, Optional 54 mm ExpressCard, Optional SmartCard Reader and optional Fingerprint Reader	4-in-1 reader (MMC, SD, SDHC, SDXC)	SDXC card slot
Wireless LAN*	<b>*802.11a/b/g/n 5 GHz</b>	<b>*802.11a/b/g/n 5 GHz</b>	<b>*802.11a/b/g/n 5 GHz</b>
Embedded 3G	upgradable	No	No
Bluetooth	Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0
Battery	6-cell (65 Whr) Lithium Ion with ExpressCharge	2 x 3 cell Battery, Power bridge technology	95 wh battery
Battery Life* (min 6hrs)	<b>9hours</b>	<b>7 Hours</b>	<b>8 hours</b>
Video Graphics	Intel Integrated HD Graphics 4400	Intel HD onboard Graphics 4400	Intel Iris Pro Graphics
FingerPrint/Security	Trusted Platform Module, Kensington Lock Slot. Dell Data Protection Security Tools and Encryption SW,	TPM, Kensington Lock slot, BIOS passwords, NO BioMetric Fingerprint reader	N/A
Camera	Light Sensitive Webcam and Noise Cancelling Digital Array Mic	HD720p resolution, wider view angle, low light sensitive, fixed focus	
Modem/Network	Gigabit Ethernet	Gigabit Ethernet	Apple Thunderbolt to Gigabit Ethernet Adapter (sold separately)
Ports	E Series Docking connector (to connect with Dell Dock/Replicator, VGA, HDMI, USB3.0 (2), USB2.0 (1))	2 x USB 3.0 (one powered)	2 x Thunderbolt 2, 2 x USB 3, HDMI port, Headphone port, Apple Thunderbolt to FireWire Adapter (sold separately)
Operating System	Win 8.1	Win 8.1	OSX
Warranty	4 year next business day onsite	4 year next business day onsite	4 year NSP onsite
Weight	2.18kg	From 1.8kg	2.02 kg
Dimensions	338mm x 32.2mm x 235mm	339mm x 232.5mm x 21mm	247.1 x 358.9 x 18mm

**Please ensure the Wireless LAN (WiFi) specifications**