IT In Education Professional Standards v1.2

	Functions	Tier 1	Tier 2	Tier 3	Tier 4
Technical Skills	Devices & Applications	Connect and check hardware devices e.g. connect external hdd to a PC, connect a Bluetooth keyboard to a tablet etc.	Install and test new hardware e.g. install new graphics card in a PC	Perform a wide range of hardware upgrades and repairs	Undertake advanced diagnosis procedures on hardware and software
		Set up a device for a stand alone user including basic account settings	Follow instructions to support the use of hardware e.g. installing drivers according to a manufacturers setup guide	Detect, diagnose and resolve most hardware device faults.	Understand and advise on the compatibility of hardware with an OS.
		Install simple software e.g. install a browser on a PC or an app on a Tablet	Perform basic device repairs and upgrades e.g. replace a broken laptop keyboard	Follow instructions to install and upgrade client/server applications e.g. perform upgrade of the school MIS system	Understand and advise on the compatibility of applications with existing systems, based on user requirements and at an
		Connect devices to network based resources e.g. connect a PC to a networked printer	Identify and rectify basic hardware or software faults e.g. damaged laptop power supply replacement	Identify the need for software patches / upgrades and install them e.g. Roll out an OS service pack following monitoring manufacturers websites and completing research	
			install complete applications and configure basic options e.g. install office software and set spell checker language	Identify where an application may not be compatible with existing software	
			Complete required software maintenance e.g. Install a service pack, update an app etc.		
	Network Infrastructure and Network Based Systems	Perform basic install and check of devices connected to a domain or workgroup e.g. Connect a PC to the network and ensure it has all required access	Perform network cable installation and mantenance e.g. patch new socket in comms cab, make a new cat5 patch cable	Install and set a basic configuration for network hardware e.g. install and name a new managed switch including supplied VPN settings	Design and implement a network infrastructure to meet the organisations requirements
		Perform basic maintenance tasks for user accounts e.g. reset Active Directory password	Perform basic recovery checks on network systems e.g. perform a backup and restore test on a networked drive	Test and configure software for rolling out to clients e.g. create and configure a new MSI package and install in AD for deployment	Manage active network components including switches, routers and bridges.
		Connect devices to a secured wireless network using a pre shared key or other authentication based on information provided	Select the appropriate wireless network SSID for a device based on user need and best security practices e.g. decide whether a device needs to connect to a guest WLAN or increased access	Configure and monitor a managed wireless network system including configuring different authentication types as appropriate	Identify appropraiate managed wireless network system and design configuration
	Network User Management	Use simple tools to update locally shared information e.g. use a CMS system to update staff only pages on a	Follow instructions to configure network based devices e.g. install ODBC connection to a central server	Maintain server based hardware and software	Deploy additional servers as required and undertake server operating system upgrades
		Follow instructions to undertake basic network monitoring / checks and report results to the relevant person e.g. check available hdd space on a network drive and report the details to your line manager	Use tools to produce new resources on an online learning environment e.g. upload new subject pages using a CMS	Design and manage the structure of an online learning environment	Manage remote access to the organisation's network
			Configure relevant software to implement, add or alter resource alloation for users e.g. set a print quota for a user, allocate disk space etc.	Determine print and disk space quotas that should be applied	Manage access to the organisation online systems
			Use existing instruction maintain settings and permissions of user accounts	Create shared folders, determining and setting appropriate access rights.	
				Monitor network connected system logs and identify when action is needed	

Service Support Procedures	Check compliance of new IT equipment and record / report appropriately	Plan for, implement and prepare users for an agreed change e.g. liase with a user to replace their laptop with a newer device	Design, plan and oversee a simple change across the organisation	Tailor specific services across the organisation, reporting on the expected impact and outcomes
Complete Changes to Systes	Update records of hardware and software locations after change e.g. update asset register when equipment is moved	Collate and report on testing of new hardware / software and sutability or potential issues	Assist in planning and implementing all aspects new software / hardware including testing, training and communication with users	Planning and implement all aspects new software / hardware including testing, training and communication with users
The audit of all IT Assets	Maintain a software library and asset register including original copies of software and licenses	Manage and report on the Software Library and Asset Register to the relevant person, including highlighting potential issues or shortfalls	Manage and oversee all aspects of the IT sustainablity and IT disposal policies	Design an implement IT sustainability and IT disposal policies
Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
Aware of the limitations and the appropriate use of hardware and OS (operating systems).	Confident user of common devices and operating systems	Confident user of a majority of devices and operating systems	Expert user of the majority of devices and operating systems	Expert user of all major devices and detailed knowledge of operating systems.
	Confident user of common applications	Confident user of the majority of applications	Expert user of applications	Expert user of desktop and client/server based applications, including a strong awareness of
		Awareness of client/server based applications e.g. MIS and Finance software	Confident user of client/server based applications.	
	Able to connect a computer to a network using simple instructions	Understand the basic principles of structured cabling and the practicalities of connecting network	Understand role and function of common network protocols and services such as DNS, DHCP and IP.	Specialist networking skills relating to managing active equipment, including wireless technology.
	Understand basic user account management	Recognise the function of basic network devices such as routers, switches and wireless access points	Aware of the ways in which different applications and operating systems can conflict.	Understand firewalls, disk caches, filtering systems, access policies and usage reporting utilities present in the server operating system.
		Aware of the function of network file systems and of file and user administration utilities.	Understand the allocation of resources such as print and disk space quotas	
			Understand the different ways that access rights can be applied	
Understand the importance of documentation	Able to identify when change needs to be recorded and what information should be recorded	Understands the importance of structured documentation to record configurations	Understands the importance of documentation for troubleshooting, planning, recovery and insurance	
	Able to understand the different levels of change and their significance	Aware of the different issues around asset disposal		

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Leading Support Services	Health & Safety	Carry out basic safety checks and escalate problems as required. Follow relevant H&S procedures and raise awareness among staff, pupils and other users.	Ensure basic safety checks are carried out and escalate problems as required. Follow relevant H&S procedures and raise awareness among staff, pupils and other users.	Implement and make modifications to relevant H&S procedures. Undertake a risk assessment for every activity. Advise other staff of H&S aspects of proposed developments.	Actively monitor organisation and legal responsibilities. Develop relevant H&S procedures and ensure that all ICT users follow appropriate practice.
	Budget & People Management	Understand the organisation process for purchasing and recording expenditure. Purchase consumables following organisation procedures. Work as part of a team.	Track spending against a budget for items such as consumables and spares Purchase lower value items following organisation procedures. Adopt flexible working practices.	Support the full range of financial planning for ICT, including purchase of larger items, and help to estimate future budget requirements. Have some supervisory responsibilities for junior staff.	Develop ICT financial management processes with reference to the organisations procedures. Closely involved in writing organisation ICT procurement policy. Management responsibilities for other ICT support staff.
	Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
		Know both general and specific ICT H&S issues relating to work, both for self and all potential users.	Know both general and specific ICT H&S issues relating to work, both for self and all potential users.	Detailed knowledge of both general and specific ICT H&S issues relating to work, both for self and all potential	Detailed knowledge of both general and specific ICT H&S issues relating to work, both for self and all potential
Continuity, Maintenance & Security	**Functions**	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
	Minimise the impact of a disaster	Complete tasks related to the organisation back up and recovery / disaster recovery documents Follow instructions to implement organisation backup and virus protection procedures.	Record any identified risks to system integrity and report them along with potential remedies Follow a scheudle of extended maintenance procedures, highlighting issues to appropriate person Implement and suggest improvements to organisation backup, virus protection and security	Identify and consider risks to systems and develop appropriate procedures to either irradicate or recover from them Develop a schedule of maintenance Identify failing systems and suggest solutions. Responsible for implementing backup and virus protection policies. Ensure whole-organisation resiliance, disaster recovery plans and data protection plans are implemented	Maintain and regularly review whole-organisation resiliance and disaster recovery plans Implement appropriate security systems to protect hardware, data and confidential information.
	Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
		Understand the need for, and scope of the organisastions disaster recovery plans understand the different ways that a wireless network can be secured Understand the need for, and scope of the organisastions data protection plans	Understand more complex aspects of risk across the wider organisation Understand which type of wireless network security to use in any situation Understand different methods and techniques for backup and data security	Understand how service continuity means more than immediate 100% availability, and how alternatives to key systems can allow the organisation to continue to function at a basic level. Understand how to deploy different types of wireless security	Understand the importance of contingency planning at different levels for elements of the organisation's business

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Support Request Management	Support Requests	Record incidents in a log and understand how to retireve information on previous incidents from the log to aid resolution	Understand the difference between incidents and problems	Identify trends and analyse incident data to improve service provision and be proactive to prevent issues happening	Produce detailed management reports and use these as evidence to support strategies and planning
		Triage support requests and either resolve or escalate appropriately	Use a knowledgbase and the internet to find resolutions to problems	Prioritise incidents and problems and determine whether external or additional support is required	Analyse the support logs to produce detailed management reports and help plan future support
		Understand how long a task should take and evaluate whether time savings could / should have been made for the future	Record detailed diagnostic information.	Monitor and manage server logs and use them to inform required developments and / or support	Provide higher tier of in house support for more complex issues
			Understand when a fix is time sensitive and escalate accordingly	Produce basic reports outlining the type and frequency of issues and	Set support priorities based on resources available
			Understand when to apply a quick fix and when a more substantive solution is required	Allocate tasks across available team members	Advise leadership team on areas of CPD required, based on information extracted from support logs.
	Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
		Understand what information it is important to record	Understand the difference between an incident and a problem.	An awareness of the importance of structured record keeping and reporting.	Understand the importance of balancing trouble-shooting against monitoring and scheduled maintenance.
		Understand the importance of recording time spent on tasks.	Understand the role of a knowledgebase in recording and retrieving known solutions to problems.	Understand which resources are available to support the ICT function, and how they might be allocated.	Aware of the role of support request analysis in providing management information and informing service development.
Procurement	Functions	Tier 1	Tier 2	Tier 3	Tier 4
		Understands the restrictions and morals of spending public money	Understands the restrictions and morals of spending public money	Can undertake / oversee a pruchasing / tender process that meets the organisations purchasing policies and proceedures	Can design a pruchasing / tender process that meets the organisations purchasing policies and proceedures
			Can support a tender / purchasing exercise by obtaining relevant pricing	Can advise the senior management team when purchasing of goods or services will be necessary over an appropriate time	Can develop an IT procurement strategy to provide best value for money for the organisation
			Can identify outline the key requirements of a required purchase	Can negotiate with suppliers to obtain appropraite goods and services at the best prices	Can produce a details financial plan for the sustainability and development of IT resources
			Can identify appropriate suppliers for a given product or service	Can specify and procure a service / support contract to meet the organisations requirements	Can specify and procure a service / support framework to meet the organisations requirements
	Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
		Understand the warranties and contracts available for use	Understand the function and values of a Service Level Agreeement	Understand the full range of ICT services that may need support	Aware of the full range of support models.
		Know when external support is available and from where it can be obtained	Understand the wider implications and limitations of any contracts (including warranties) that are in place	Have a detailed understanding of all the external ICT support services and contracts in place.	
Strategy and Planning	Functions	Tier 1	Tier 2	Tier 3	Tier 4
	Ensure ICT development supports the organisations priorities	Identify where ICT could be improved or a better solution is available	Identify where ICT improvements could be made and identify how this could be achieved.	Identify software, hardware and working practices that would be appropriate to fulfil required functions as defined by the relevant organisation leaders.	Have an overall view of the capabilities of the organisation's ICT service and contribute to continuous improvement to meet future needs.
				Plan and implement required or identified changes to the service provision	Plan for major developments of the ICT service and project manage their
	Knowledge	**Tier 1**	**Tier 2**	**Tier 3**	**Tier 4**
		Aware of the possibilities of ICT in providing a solution.	Basic technical knowledge of the possibilities of ICT in providing a solution.	Technical knowledge of a wide range of solutions.	Specialist technical knowledge of a wide range of solutions.
					Understand system integration risks and issues.

Behaviours

Functions	Tier 1	Tier 2	Tier 3	Tier 4
Individual Skills	Attend relevant courses / undertake online training to improve skills and knowledge	Attend relevant courses / undertake online training to improve skills and knowledge	Actively seek to broaden knowledge and skills, including technical, management and other areas relevant to the organisation.	Actively seek to maintain and extend expertise in appropriate areas.
Communication	Offer support staff and pupils based on your own knowledge and skills	Advise and train individual staff and pupils.	Run training sessions for groups of staff	Advise senior staff and governors on changes to policy or new potential
	Have appropriate communications with suppliers	Have appropriate communications with suppliers	Negotiate with suppliers and maintain effective relationships with them.	Negotiate with suppliers and maintain effective relationships with them.
	Produce brief guidance and support sheets for staff and pupils	Produce detailed guidance and support sheets for staff and pupils	Document and design current policies and practice	Design and document systems and procedures.
	Network with colleagues doing similar roles in other similar organisations	Network with colleagues doing similar roles in other similar organisations	Network with colleagues doing similar roles in other similar organisations	Network with colleagues doing similar roles in other similar organisations
Educational Awareness	Regularly attend staff briefings and meetings to understand how ICT is used across the organisation	Read organisation policy documents, schemes of work and curriculum plans.	Liaise with senior staff about upcoming challenges and strategies for the organisation	Liaise with senior staff about upcoming challenges and strategies for the organisation and offer advice and solutions to these
			Read published materials about the educational use of ICT.	Regularly access key ICT education web sites and publications to keep abreast of changes and

Knowledge	Tier 1	Tier 2	Tier 3	Tier 4
	Able to use a word processing package.	Able to use a range of office applications.	Can create a database that utilises web forms for accessing data and updating.	Develop expertise in specific user areas to provide advice and support.
	Able to use email and browse the web.	Understand different types of email uses and systems	Can create simple code or macros to automate tasks	Create complex code to automate and improve accuracy of tasks
	Understand basic file management.	Can produce a simple web page.	Understand how to move data between different applications using appropriate file formats (e.g..	Understand how to move data between different applications using appropriate file formats (e.g..
	Able to download and save files from the Internet.	Can perform simple image manipulation.	Understand the relationship between all the different data systems in school and utilise interoperability between	Understand the relationship between all the different data systems in school and utilise interoperability between
	Able to undertake basic software / application installations	Able to download and save files from the Internet.	Good level of written and spoken English appropriate to the context and audience.	Good level of written and spoken English appropriate to the context and audience
	Can use simple peripherals.	Good level of written and spoken English appropriate to the context and audience.	Detailed knowledge of organisation structure, including staffing roles and responsibilities.	Aware of the different agencies that govern or advise the organisation
	Awareness of computer viruses and other security risks	Appreciation of the curriculum, including a general understanding of the requirements for ICT in the schools curriculum.	Understand how ICT can enhance the teaching and learning in, and management of schools.	Aware of different levels of capability in each level of NC ICT and implications for infrastructure.
	Good level of written and spoken English appropriate to the context and audience.	Aware of relevant organisation policies.		
	Aware of basic organisation structure, year groups and staffing structure.	An understanding of the use, functionality and limitations of differnet platforms including desktop and mobile devices		Understand how the overall technical requirements of the organisation should support the use of ICT in the curriculum and management of the organisation.
	Aware of different levels of ability and confidence of staff and pupils in using ICT.	Aware of different levels of ability and confidence of staff and pupils in using ICT.		
	An understanding of the use, functionality and limitations of differnet platforms including desktop and mobile	Aware of potential and actual uses of ICT in schools.		
	Aware of potential and actual uses of ICT in schools.			