

SMART DIGITAL

Curriculum 1.0



Curriculum Document



Purpose

This document details the curriculum for the Smart Digital module. The curriculum describes the learning outcomes and specific learning objectives that a candidate for the Smart Digital module should achieve. The curriculum also provides the basis for the theory and practice-based certification test for this module.

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Smart Digital Programme

Smart Digital sets out knowledge and skills that will allow students to use devices and applications securely, safely, and effectively.

Module Goals

Following successful completion of this 3-unit module, successful candidates will be able to:

- **Start** using devices and applications responsibly and securely, locate information online, and create a simple research output.
- **Build** skills and knowledge through creating online accounts and using common applications, finding and organising information, and creating and printing a well-structured report.
- Share and develop content using more advanced research skills, select and manage applications, protect data and devices, create a variety of content as part of a broader project, interact safely and responsibly online, and manage their digital identity.

Curriculum Structure

The Smart Digital Curriculum is divided into three units:

Unit 1: StartingUnit 2: BuildingUnit 3: Sharing

Each unit is made up of 10 lessons, and each lesson is approximately equivalent to 1 classroom hour.

Each lesson has one or more associated learning outcomes, which describe what the student will be able to do on successful completion of the lesson.

Each learning outcome (apart from Lesson 10 in each unit) has one or more learning objectives, which set out the specific, measurable goals of the learning activity and are generally either conceptual (focused on knowledge) or practical (focused on skills).

Unit 1: Starting

Lesson 1.1: Introduction to Devices

- Identify devices and select an appropriate device for my needs
 - 1.1.1 Identify different devices and their functions: computers, laptops, tablets, smart phones.

Lesson 1.2: Use my Device Responsibly

- Manage my recreational screen time responsibly.
 - 1.2.1 Identify the potential impact of excessive device use on health and well-being like: reduced sleep, less quality face-to face interaction, less physical activity, poorer eyesight.
 - 1.2.2 Identify ways to reduce device use like: monitor use, do not use during certain activities (study, meals, bedtime).
- Protect the environment when using my device.
 - 1.2.3 Recognise some ways of protecting the environment when using technology like: saving energy, recycling.

Lesson 1.3: Access my Device Securely

- Access my device and keep my information safe.
 - 1.3.1 Log on to a device.
 - 1.3.2 Recognise good password policies like: create with adequate length, adequate character and number mix, do not share, change regularly, do not reuse between accounts).
 - 1.3.3 Log off, shut down, restart a device using an appropriate routine.

Lesson 1.4: Home Screen Basics

- Recognise the main home screen features and applications on my device.
 - 1.4.1 Understand the purpose of an operating system and name some common examples. Recognise common operating system interface features like: desktop/home screen, icons, taskbar/bars.
 - 1.4.2 Recognise different application types like: utilities, communication, games, business, education, productivity, news.
 - 1.4.3 Recognise the potential of using technology to participate in and contribute positively to society.

Lesson 1.5: Getting Online

- Connect securely to the Internet.
 - 1.5.1 Recognise the status of a wireless network: protected/secured, open/unsecured. Be aware of the risks associated with using open/unsecured wifi.
 - 1.5.2 Connect to a wireless network, forget a wireless network.
- Access and navigate online content using a web browser.
 - 1.5.3 Understand the purpose of a web browser and name some common web browsers.
 - 1.5.4 Set the web browser home page.
 - 1.5.5 Open a web page in a new tab, new window. Switch between tabs, windows.
 - 1.5.6 Refresh a web page, stop a web page downloading.

Lesson 1.6: Online Search Basics

- Search for information online using a simple search.
 - 1.6.1 Define the term search engine and name some common search engines.
 - 1.6.2 Open a search engine. Carry out a simple search using keywords, exact phrase.

Unit 1: Starting

Lesson 1.7: Find Useful Information

- Understand the need to critically evaluate online information.
 - 1.7.1 Understand the importance of critically evaluating online information to help ensure information is correct and appropriate. Understand the purpose of different sites like: information, entertainment, opinion, sales.
- Use and reference online content appropriately.
 - 1.7.2 Define the terms copyright, intellectual property.
 - 1.7.3 Be aware that some content is free to use, reuse, and adapt subject to conditions.
 - 1.7.4 Acknowledge sources and/or seek permission as appropriate.
 - 1.7.5 Recognise the benefits of sourcing and comparing online information from different sources.

Lesson 1.8: Create my Research Document

- Create and save a simple document to present my research.
 - 1.8.1 Open a word processing application. Create a new document.
 - 1.8.2 Enter text into a document.
 - 1.8.3 Copy, move text within a document.
 - 1.8.4 Save and name a document.
 - 1.8.5 Close a document. Close an application.

Lesson 1.9: Develop my Research Document

- Add and edit content in my research document.
 - 1.9.1 Open a document.
 - 1.9.2 Copy text, image, URL, between open documents, from a web page to a document.
 - 1.9.3 Move text, image, URL, between open documents.
 - 1.9.4 Capture a full screen, active window. Paste a screen capture into a document.
 - 1.9.5 Delete text, image, URL in a document.
 - 1.9.6 Use the undo, redo command.

Lesson 1.10: Present my Research Document

• Reflect on my research activity, and present my research.

Unit 2: Building

Lesson 2.1: Online Accounts

- Set up an online account to access applications and services.
 - 2.1.1 Create an account with an online service provider to access applications and services online like: search, storage, word processing, presentations, spreadsheets, email, messaging services, social networks.
 - 2.1.2 Understand that information on devices can be synchronised with information from an online account.
 - 2.1.3 Log in to, log off from an online account.
- Secure my online account to protect my data and personal information.
 - 2.1.4 Understand the reasons for protecting data and personal information in an online account like: avoiding identity theft, fraud, maintaining privacy.
 - 2.1.5 Understand how to protect data and personal information in an online account like: apply good password policies, log off.

Lesson 2.2: Applications for Creating

- Identify common applications and services like search, storage, word processing, presentations, spreadsheets.
 - 2.2.1 Identify some common applications and services for creating, storing and sharing content online like: search, storage, word processing, presentations, spreadsheets.
 - 2.2.2 Be aware that applications can be accessed/available online or installed.
 - 2.2.3 Recognise different application licensing models: free, one-off payment, subscription, freemium.

Lesson 2.3: Applications for Sharing

- Identify common applications and services like email, messaging services, social networks.
 - 2.3.1 Identify some common applications and services for creating, storing and sharing content online like: email, messaging services, social networks.

Lesson 2.4: Search Efficiently Online

- Efficiently find useful online information.
 - 2.4.1 Use a search engine to carry out a search using an operator (AND /+, OR, NOT /-).
 - 2.4.2 Be aware that search terms are a set of instructions to a search engine that affect the quality of search results.
 - 2.4.3 Search for a word, term using a reference site like: online encyclopaedia, dictionary.
 - 2.4.4 Use a web tool to translate a web page, text.
- Critically evaluate sources of online information.
 - 2.4.5 Outline factors that determine the credibility of a source / website like: author, referencing, up-to-date content.

Unit 2: Building

Lesson 2.5: Organise Online Content

- Organise links to useful online sources and store useful online information.
 - 2.5.1 Add web pages to, remove web pages from a bookmarks / favourites folder.
 - 2.5.2 Create, delete a bookmarks / favourites folder.
 - 2.5.3 Download, save files from a web page to a location.
- Manage my browser settings to protect my data and personal information.
 - 2.5.4 Understand the term cookie. Be aware of the implications of accepting or rejecting cookies on web sites.
 - 2.5.5 Be aware that private browsing mode may remove personal data from the browser but that browsing activity may still be recorded.
 - 2.5.6 Delete history, temporary internet files, saved form data.

Lesson 2.6: Organise Files

- Store and Organise my files.
 - 2.6.1 Recognise good practice in folder, file naming: use meaningful names for folders and files to help with searching and organisation.
 - 2.6.2 Create a folder. Delete a file, folder.
 - 2.6.3 Rename a file, folder.
 - 2.6.4 Copy, move files, folders between folders, drives
 - 2.6.5 Upload, download files and folders to a cloud-based storage service.
 - 2.6.6 Search for files by properties: all or part of file name using wildcards if necessary, content, date modified.
 - 2.6.7 View available storage like: device memory, memory card storage, cloud-based storage.

Lesson 2.7: Create my Report

- Create a well-structured and clearly presented report.
 - 2.7.1 Change text formatting: size, font type, style, colour.
 - 2.7.2 Add, remove bullets, numbers in a single level list.

Lesson 2.8: Develop My Report

- Edit and save a well-structured and clearly presented report.
 - 2.8.1 Save data to a cloud-based storage service, external drive. Be aware of the importance of maintaining a backup of data.

Lesson 2.9: Connect and Print

- Connect devices and peripheral devices.
 - 2.9.1 Connect a device to another device or peripheral. Disconnect a device using an appropriate routine.
- Print my report.
 - 2.9.2 Print a document.

Lesson 2.10: Present my Report

Reflect on my content development activity, and present my report.

Unit 3: Sharing

Lesson 3.1: Advanced Research Skills

- Use advanced search and evaluation techniques to find appropriate information online.
 - 3.1.1 Refine a search using advanced search features like: date, language, media type.
 - 3.1.2 Identify sources of online information like: e-books, reference sites, online courses, podcasts, videos, audio, animations, data sets, discussion forums, review sites.
 - 3.1.3 Recognise that online discussion and review sites may have large numbers of diverse participants, but may be open to manipulation, untruthful commentary.

Lesson 3.2: Explore Online Applications 1

- Identify and select a range of suitable applications and services like digital notebooks, concept mapping, blogging apps, wikis, online learning environments.
 - 3.2.1 Be aware of the importance of continuously building your digital skills.
 - 3.2.2 Identify applications and services for creating and sharing content online like: digital notebooks, concept mapping, blogging apps, wikis, online learning environments.
 - 3.2.3 Outline factors that determine the suitability of applications and services like: appropriate for the task, ease of use, up-to-date, trusted provider, appropriate cost.

Lesson 3.3: Explore Online Applications 2

- Identify a range of suitable applications and services like image editors, audio recorders and editors, video makers and editors.
 - 3.3.1 Identify applications and services for creating and sharing content online like: image editors, audio recorders and editors, video makers and editors.

Lesson 3.4: Protect Devices and Personal Data

- Understand some ways to protect my device and data when installing applications.
 - 3.4.1 Understand the possible implications of using applications from unofficial application stores like: mobile malware, unnecessary resource utilisation, access to personal data, poor quality, hidden costs.
 - 3.4.2 Be aware that mobile applications can extract private information from a device like: contacts, location, images.
 - 3.4.3 Understand considerations for allowing mobile applications to access contacts, content, location like: appropriate to share, required for purpose.
 - 3.4.4 Be aware of the risks of accidental purchasing online when using games, services.
 - 3.4.5 Recognise the importance of regularly updating software like: anti-virus, application, operating system software. Be aware of the implications of removing an application: potential loss of data, loss of in-app purchases.

Lesson 3.5: Install and Update Applications

- Install and uninstall applications appropriately.
 - 3.5.1 Install, uninstall an application.
 - 3.5.2 Update an application on a device.
 - 3.5.3 Enable, disable automatic updating of applications.
 - 3.5.4 Shut down a non-responding application.
 - 3.5.5 Reset a tablet, smartphone to remove personal data.
 - 3.5.6 Be aware of measures to take if a device is lost like: locate device, remote disable, remote wipe.

Unit 3: Sharing

Lesson 3.6: Creating my Project

- Create different types of content like photos, videos and audio clips.
 - 3.6.1 Create content like: photo, video, audio.

Lesson 3.7: Developing my Project

- Add different types of content to my project.
 - 3.7.1 Insert in a page, slide content like: picture, video, audio, link.
- Share my project online.
 - 3.7.2 Use cloud-based storage to share online files and folders.

Lesson 3.8: Interacting Safely and Responsibly Online

- Interact safely and responsibly online.
 - 3.8.1 Recognise the importance of being respectful and appropriate when communicating online.
 - 3.8.2 Outline potential risks of interacting online like: cyberbullying, grooming, identity theft, inappropriate sharing of personal content, access to inappropriate content.
 - 3.8.3 Recognise different identity theft methods: vishing, phishing, shoulder surfing.
 - 3.8.4 Apply social networking account settings to stop inappropriate interactions: delete, block, unfollow, report.
 - 3.8.5 Be aware that there may be legal consequences for sharing personal content (images, videos) without permission, posting inappropriate content.

Lesson 3.9: My Digital Footprint

- Manage my digital footprint to create a positive online reputation.
 - 3.9.1 Understand the terms digital footprint and digital identity and the importance of creating a positive digital footprint and digital identity.
 - 3.9.2 Understand that digital content, including comments and posts, can be easily shared with a large audience with or without permission.
 - 3.9.3 Be aware that it is not appropriate to disclose confidential or personal identifiable information on social networking sites.
 - 3.9.4 Apply social networking account settings to protect privacy: account privacy, location.

Lesson 3.10: Present my Project

Reflect on my research activity and present my project.

DigComp 2.1 – Smart Digital Cross Reference

The following indicates 1 the relationship between $\underline{\text{DigComp 2.1}}$ – Europe's Digital Competence Framework for Citizens – and the ICDL Smart Digital Curriculum.

DigComp 2.1 Competences Area	DigComp 2.1 Competence	Relevant ICDL Smart Digital Lesson
Information and Digital Literacy	1.1 Browsing, searching and filtering data, information and digital content	1.6, 2.4, 2.5, 3.1
	1.2 Evaluating data, information and digital content	1.7, 2.4, 3.1
	1.3 Managing data, information and digital content	1.4, 2.1, 2.2, 2.3, 2.5, 2.6, 2.8
Communication and Collaboration	2.1 Interacting through digital technologies	2.1, , 2.3
	2.2 Sharing through digital technologies	1.7, 2.3, 2.9, 3.7
	2.3 Engaging in citizenship through digital technologies	1.4
	2.4 Collaborating through digital technologies	3.2
	2.5 Netiquette	3.8, 3.9
	2.6 Managing digital identity	3.9
Digital Content Creation	3.1 Developing digital content	1.4, 1.8, 1.9, 2.7, 3.2, 3.3, 3.6
	3.2 Integrating and re-elaborating digital content	1.8, 1.9, 2.7, 3.3, 3.7
	3.3 Copyright and licences	1.7, 2.2
	3.4 Programming	2.4
Safety	4.1 Protecting devices	1.3, 1.5, 3.4, 3.5
	4.2 Protecting personal data and privacy	1.3, 2.1, 2.5, 2.4, 3.5, 3.8, 3.9
	4.3 Protecting health and well-being	1.2, 3.9
	4.4 Protecting the environment	1.2
Problem Solving	5.1 Solving technical problems	3.5
	5.2 Identifying needs and technological responses	1.1, 2.2, 3.2, 3.4
	5.3 Creatively using digital technologies	1.10, 2.10, 3.10
	5.4 Identifying digital competence gaps	3.2

¹ Mapping is approximate, and different interpretations of relevance may exist