

ECIE6002

Moving Away from the Traditional Classroom – The Silent Digital Revolution in Education

Blogs

Leah Hughes

1911890

Contents Table

Click, Create, Collaborate: The New Literacy of Learning.....	3
Digital Competence in a nutshell.....	3
The Digital Competence Framework (DCF): Structure and Curriculum Fit.....	3
In school & Beyond.....	4
Strengths or Limitation? You decide!.....	6
Reference List.....	7
Clicks and consequences: Understanding the Digital World's Impact on Children and Young People through the lenses of Bronfenbrenner's Ecological Systems Theory.....	8
What is "the digital world"?.....	8
The effects of the Digital World on Children & Young people.....	8
Bronfenbrenner in a digital context.....	9
Theory in practice: Digital literacy & safeguarding.....	10
Connected or Disconnected? Lessons from Life in Digital Classrooms.....	13
About me.....	13
Benefits of digital teaching and learning.....	13
Digital inclusion.....	14
Barriers to digital inclusion.....	14
Transforming Teaching Through Hwb.....	17
What is hwb?.....	17
How Hwb Meets Their Needs.....	20
Limitations and Challenges.....	21
References.....	23

Click, Create, Collaborate: The New Literacy of Learning



(CareerTeam, 2025)

Digital Competence in a nutshell

Digital competence refers to the ability to use digital technologies confidently, creatively, and responsibly to support learning and everyday life. It encompasses a wide range of skills, including finding and evaluating information, creating digital content, communicating & collaborating online, and understanding how to stay safe & ethical in digital spaces. It equips individuals not just to use technology, but to use it effectively, purposefully, and responsibly in an increasingly digital society.

Digital competence develops through interaction, collaboration, and guided learning, by encouraging learners to use digital tools across subjects. This emphasis on responsibility reflects social constructivist theory, which highlights learning as a socially mediated process (Vygotsky, 1978).

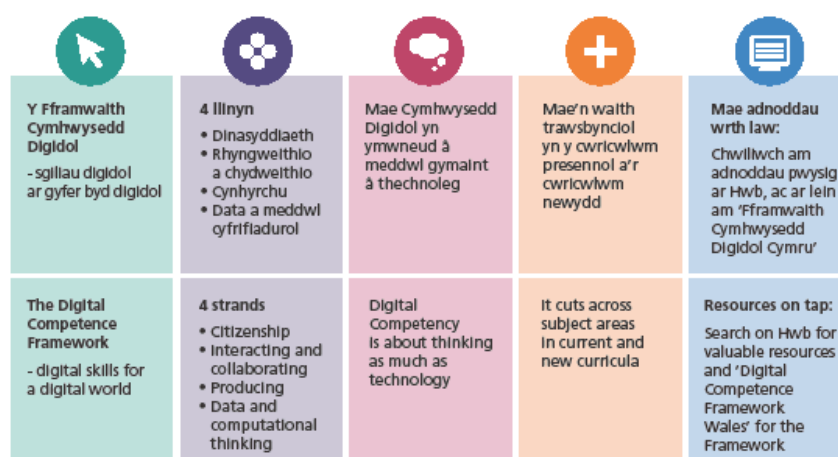
The Digital Competence Framework (DCF): Structure and Curriculum Fit

In recent years, digital competence has become an essential part of education, as a set of capabilities that learners need to thrive in a complex digital world. This aligns with the OECD's Learning Framework, which argues that in the era of digital transformation "digital literacy and data literacy are becoming increasingly essential" as part of the foundational skills learners require to exercise agency and shape their futures (OECD, 2018, p. 4). The DCF emphasises that students must "mobilise knowledge, skills, attitudes and values,

including digital literacies, to engage effectively with rapid economic, social and technological change and to participate actively in modern society” (OECD, 2018).

The DCF is a structured model that sets out the knowledge, skills and dispositions learners need to use digital technologies “confidently, creatively and critically” across the curriculum (Welsh Government, 2020). It defines what effective digital competence looks like from the early years to the end of compulsory education, providing practitioners with a clear, progressive continuum across ages and abilities (Welsh Government, 2020). The Curriculum for Wales is designed around four key purposes that aim to develop learners into ethical, informed citizens and enterprising, creative contributors (Donaldson, 2015). The DCF is intended to complement and strengthen learning across all Areas of Learning and Experience (AoLEs) (Welsh Government, 2020).

Y Fframwaith Cymhwysedd Digidol Digital Competence Framework



Gwefan/Website: www.llyw.cymru/cwricwlwmigymru www.gov.wales/curriculumforwales

(Welsh Government, 2018)

Four strands of the DCF:

<u>Citizenship</u> • Identity, image and reputation • Health & Wellbeing • Digital rights, licensing & ownership • Online behaviour & online bullying	<u>Interacting & collaboration</u> • Communication • Collaboration • Storing & Sharing
<u>Producing</u> • Sourcing, searching & planning digital content • Creating digital content • Evaluating & improving digital content	<u>Data & Computational Thinking</u> • Problem solving & modelling • Data & information literacy (Welsh Government, 2021)

In school & Beyond

Primary School

- Online Safety and Personal Information
 - Pupils learn what personal information is and why it should be protected through stories, cartoons, and role-play.
- Digital Identity Awareness
 - Learners choose appropriate usernames and avatars, discussing how choices represent them online
- Creative Digital Expression
 - Create simple presentations, videos, or digital drawings to share learning.
- Early Data Skills
 - Pupils collect class data (e.g. favourite fruit) and create pictograms or charts using digital tools.

Secondary School

- Advanced Online Safety and Digital Footprint
 - Learners explore privacy settings, data protection, and the permanence of online posts.
- Critical Evaluation of Online Content
 - Learners assess reliability, bias, and misinformation in news, social media, and AI-generated content.
- Data Analysis and Coding
 - Learners use spreadsheets, databases, and coding platforms to solve problems and analyse real data.

Supporting Learners with Additional Learning Needs (ALN)

- Accessible Digital Tools
 - Assistive technologies such as text-to-speech, speech-to-text, visual supports, and simplified interfaces are used to remove barriers to learning.
- Personalised Online Safety Education
 - Online safety and digital identity concepts are taught explicitly using repetition, visuals, and real-life examples relevant to the learner.
- Supporting Communication and Expression
 - Learners use multimedia (audio, video, symbols, images) to demonstrate understanding rather than relying solely on written text supporting independence and confidence.
- Developing Independence and Life Skills
 - Digital skills are linked to real-life applications such as using email, accessing online services, or organising tasks. This supports preparation for adulthood, employment, and community participation.

Real World Relevance

At the earlier progression steps, learners are introduced to the idea that information shared online can be seen by others and may have consequences. While simple, these experiences reflect real digital practices and align with research showing that early digital safety education is most effective when grounded in familiar, everyday contexts (Livingstone et al., 2017). As learners progress, the DCF expects them to evaluate how online actions contribute to a digital footprint and how this can shape reputation. Pupils may analyse case studies of inappropriate posts, explore how employers use social media in recruitment, or reflect on how images shared in group chats could be shared without consent.

Strengths or Limitations? You decide!

Clear progression steps

The clear progression steps within the DCF help teachers understand what pupils should achieve at different ages, aligning well with Piaget's cognitive development theory, which emphasises that learning should be matched to learners' developmental stages (Piaget, 1952). This age-appropriate structuring of digital competence outcomes supports teachers to scaffold learning in ways that are neither too simple nor too complex for learners at each stage (Piaget, 1952). However, this stage-based alignment can be criticised for implying a uniform trajectory, potentially overlooking pupils who develop digital competencies faster or slower than the "typical" age band, or who acquire sophisticated digital skills informally outside school.

Relevance of learning

One of the key strengths of the DCF is that it explicitly connects learning in school with the realities of life. Rather than being an abstract or purely technical skill, it mirrors challenges that learners will face throughout their lives, on social media, in higher education, and in employment. In an era marked by rapid technological change, the DCF prepares learners not just to use technology, but to understand its implications, socially, ethically, and economically. In summary, digital competence goes beyond the use of technology; it equips children with the skills, confidence, and responsibility needed to learn, create, and thrive, ensuring learners become critical and responsible digital citizens in an increasingly digital world.

Flexibility in the classroom

As its statements can be applied across subjects rather than being confined to standalone ICT lessons, supporting a cross-curricular approach to developing digital skills (Welsh Government, 2020). Yet, this openness can also create inconsistency: without sufficient guidance and professional learning, teachers may interpret progression statements unevenly, leading to variable expectations and experiences for learners in different classes or schools.

Reference List

CareerTeam (2025). *Digital Competence: The new standard for Executives*. Available at: <https://www.careerteam.de/en-insights/digital-competence-the-new-standard-for-executives>. Accessed: 30 December 2025

Donaldson, G. (2015). *Successful Futures: Independent Review of Curriculum and Assessment Arrangements in Wales*. Welsh Government. Available at: <https://www.gov.wales/sites/default/files/publications/2018-03/successful-futures.pdf> Accessed: 27 December 2025

Livingstone, S., Mascheroni, G., & Staksrud, E. (2017). *European research on children's internet use: Assessing the past and anticipating the future*. *New Media & Society*, 20(3), 1103–1122.

OECD (2018) *The Future of Education and Skills Education 2030*. Available at: https://www.oecd.org/content/dam/oecd/en/publications/reports/2018/06/the-future-of-education-and-skills_5424dd26/54ac7020-en.pdf. Accessed: 27 December 2025

Piaget, J. (1952) *The origins of intelligence in children*. New York: International Universities Press.

Vygotsky, L.S. (1978) *Mind in Society: the Development of Higher Psychological Processes*. Harvard University Press.

Welsh Government (2018). *Digital Competence Framework Wall Chart and 'Postcard'* Available at: <https://educationwales.blog.gov.wales/2018/02/27/digital-competence-framework-wall-chart-and-postcard/>. Accessed: 4 January 2026

Welsh Government (2020) *Digital Competence Framework*. Available at: <https://hwb.gov.wales/api/storage/d26af733-abd1-4d33-92fe-4ea8eb1d928f/dcf40620.pdf> (Accessed: 8 December 2025).

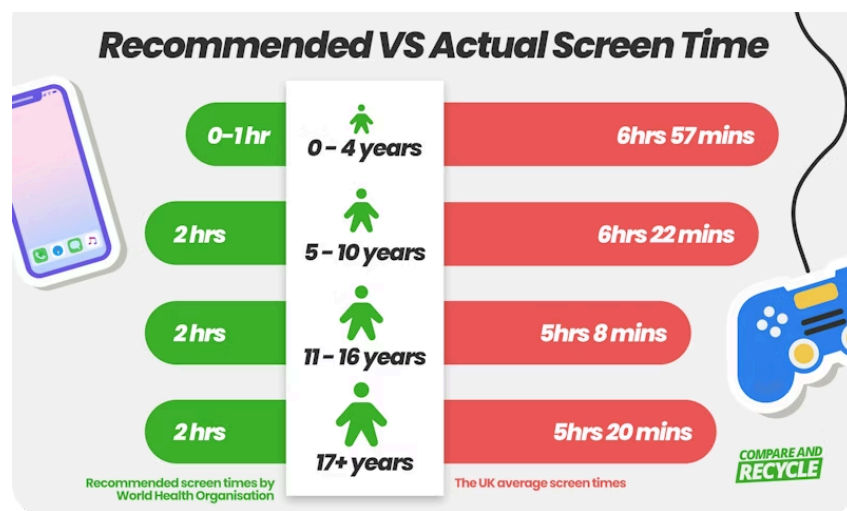
Welsh Government. (2021). *Digital Competence Framework (DCF)*. Available at: <https://hwb.gov.wales/curriculum-for-wales/cross-curricular-skills-frameworks/digital-competence-framework-dcf>. Accessed: 11 December 2025

Clicks and consequences: Understanding the Digital World's Impact on Children and Young People through the lenses of Bronfenbrenner's Ecological Systems Theory

What is "the digital world"?

The digital world is simply anything to do with technology, the internet and social networking.

Look how much technology has taken over CYP lives!



(Antonia, 2025)

The effects of the Digital World on Children & Young people

Positive

Learning & cognitive development

- Enhanced learning opportunities and access to information
- Greater independence as learners and consumers of digital information
- access to education/jobs

Social & health benefits

- Improved communication and connection with friends & family, maintaining long-distance relationships, and finding supportive communities with shared interests
- A space to explore identity & showcase talents
- Access to mental health and fitness apps, promoting physical and mental wellbeing.

Digital literacy & future skills

- Supports creativity, collaboration, and development of digital skills
- The digital world provides instant, global access to great deal of information, which is fundamental to developing research skills, critical thinking, and media literacy
- Learn new skills! Fosters adaptability, problem-solving, and continuous learning, skills critical for employment

Negative

Mental & physical health

- Higher levels of screen time are associated with increased depressive symptoms, anxiety, and lower quality of life.
- Excessive screen time is linked to a higher risk of obesity and unhealthy diets.
- Sleep disturbances due to spending too much time on digital devices

Exposure to harmful content & safety risks

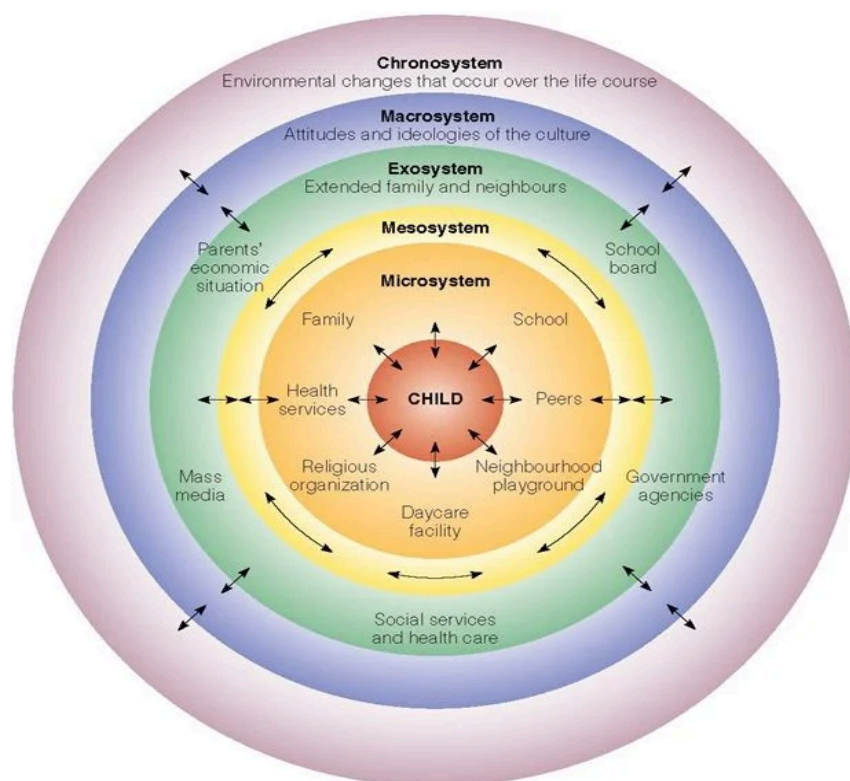
- Encounter inappropriate content that can be harmful
- Exposure to cyberbullying, online sexual abuse, and hate content.
- Exposure to harmful online content and pressure from social comparisons
- Some children may lack a safe, private space at home to engage with online services, and there are concerns about data security.

Social & cognitive development

- Excessive screen time can lead to less engagement in real-world social interactions.
- Decreased attention span
- Impaired attention, cognitive inflexibility, and potential for poorer academic performance

Bronfenbrenner in a digital context

Bronfenbrenner's ecological systems theory provides a comprehensive framework for understanding the multifaceted influences on children's and young people's development. Bronfenbrenner "emphasised a balance between nature and nurture, otherwise known as heredity and environment" (Bates, 2019, p.194).



(Guy-Evans, 2025)

Theory in practice: Digital literacy & safeguarding

Children and young people's engagement with the digital world is shaped not only by their individual choices but is shared across interconnected systems; from families and schools to institutions, digital platforms, and government. Understanding who is responsible at each level reinforces the importance of a coordinated, multi-agency approach to supporting CYP to engage safely, critically, and confidently in the digital world.

Parents & families

Parents and carers are a CYP immediate environment where direct interactions take place e.g. supervise screen use, apply parental controls, and engage in open conversations about online experiences. These daily interactions have the most immediate influence on how children understand and navigate the digital world. Organisations such as the NSPCC & childline provide support through accessible guidance and direct support that enables CYP to recognise online harm and seek help when digital experiences become unsafe (Childline, 2020; NSPCC, 2023)

Schools & support services

Digital literacy and safeguarding doesn't end with parents & families but are shared responsibilities with school. Schools are required through the curriculum for Wales to "provide learners with high-level digital skills" including creating digitally competent & resilient learners (Welsh Government, 2020). However communication between schools and parents is key e.g. through workshops, newsletters, or digital platforms that reinforce consistent messages about online safety. When concerns arise, schools may work alongside

safeguarding leads or external agencies to support the child. This collaboration ensures that digital literacy and safeguarding are not addressed in isolation but reinforced across all areas of CYP lives.

Institutions, Employers & digital platforms

In practice, this includes school safeguarding policies, staff training on online harm, and organisational procedures for reporting concerns. Social media companies and online platforms also play a role through moderation policies, age restrictions, and reporting mechanisms, which shape the digital spaces children access. Although children are not directly involved in these systems, decisions made here significantly impact their online safety and digital opportunities.

Government & society

The macrosystem reflects broader societal values, cultural norms, and legal frameworks. Regulatory bodies oversee compliance, while cultural attitudes towards technology influence how seriously online risks are taken. These policies provide the legal and ethical foundation that guides practice at all other levels of the ecological system. For example, The Online Safety Act 2023 protects both children and adults as it “puts a range of new duties on social media companies and search services, making them more responsible for their users’ safety on their platforms” (Department for Science, Innovation & Technology, 2025)

Responsibility to adapt over time

Digital experiences and associated risks are continually evolving, meaning safeguarding responsibility must remain flexible and responsive. The rapid growth of social media, artificial intelligence, and increased screen use following the COVID-19 pandemic has required ongoing updates to safeguarding policies and digital literacy education. Within this changing context, Ofcom operates at the macrosystem level by regulating online services and enforcing compliance with child safety duties under the Online Safety Act, stating that it is responsible for “making sure online services protect children from harmful content” (Ofcom, 2023). Consequently, professionals must regularly review training and practice to ensure children and young people are equipped to navigate an increasingly complex and evolving digital world.

**Now more than ever it is vital that we support CYP where possible
to ensure a safe and secure future!**

Reference List

Antonia (2025). *Tech Tots Report: Exploring Children's Screen Time, Milestones and Digital Habits in 2025*. [online] Available at:

<https://www.compareandrecycle.co.uk/blog/effects-of-screen-time-on-children>. Accessed: 4 January 2026

Childline (2020). *Online and mobile safety | Childline*. [online] Childline.org.uk. Available at: <https://www.childline.org.uk/info-advice/bullying-abuse-safety/online-mobile-safety/>.

Accessed: 3 January 2025

Department for Science, Innovation & Technology (2025). *Online Safety Act: explainer*.

[online] GOV.UK. Available at:

<https://www.gov.uk/government/publications/online-safety-act-explainer/online-safety-act-explainer>. Accessed: 3 January 2026

Guy-Evans, O. (2025). *Bronfenbrenner's Ecological Systems Theory*. [online] Simply

Psychology. Available at: <https://www.simplypsychology.org/Bronfenbrenner.html>. Accessed: 4 January 2026

NSPCC (2023). *NSPCC*. [online] Available at: <https://www.nspcc.org.uk/>. Accessed: 3

January 2026

Ofcom (2023) *Online safety: What Ofcom does*. Available at:

<https://www.ofcom.org.uk/online-safety> Accessed: 3 January 2026

Welsh Government (2020). *Enhancing digital resilience in education: An action plan to protect children and young people online* [online] hwb.gov.wales. Available at:

<https://hwb.gov.wales/keeping-safe-online/enhancing-digital-resilience-in-education-an-action-plan-to-protect-children-and-young-people-online/>. Accessed: 3 January 2026

Connected or Disconnected? Lessons from Life in Digital Classrooms



(Fischer, 2020)

About me!

Work

I currently work in a Welsh mainstream primary school as a Teaching Assistant, supporting pupils in their daily learning and regularly covering classrooms. This role provides first-hand experience of how children engage with learning in a classroom setting, including their varying levels of access and confidence with digital tools.

Student

I am also a university student studying through a blended learning model that combines online study and face-to-face lectures. Experiencing digital learning first-hand allows me to understand its strengths and challenges from a learner's perspective.

Drawing on these experiences, this blog explores the benefits of digital approaches to teaching and learning, the barriers that can limit digital inclusion & the ways these challenges may be addressed to ensure all learners can participate fully.

Benefits of digital teaching and learning

Drawing on my experience as a Teaching Assistant in a primary school and as a university student, digital teaching and learning offers many benefits for both learners and educators when implemented effectively such as...

Engagement

One significant benefit of digital learning is increased learner engagement. Interactive tools such as quizzes, gamified platforms, and reward systems can motivate learners and encourage active participation, particularly for younger pupils and those with additional learning needs. This reflects constructivist learning theory, which emphasises that learners actively construct knowledge through interaction and experience (Piaget, 1972).

Enhanced Skills development & Future ready

The Curriculum for Wales aims to develop “ambitious, capable learners” who are ready to learn throughout their lives (Welsh Government, 2022). Regular use of digital platforms helps learners develop digital competence, independence, communication, and collaboration skills, aligning with the Digital Competence Framework, which embeds digital skills across all Areas of Learning and Experience (Welsh Government, 2020).

Flexibility and accessibility

Blended and asynchronous learning models allow learners to access materials at their own pace and fit learning around other commitments. My experience of blended university study demonstrates how digital learning can promote autonomy and widen participation. Vygotsky (1978) further highlights the importance of social interaction in learning, describing learning as taking place within the “zone of proximal development”.

Personalisation & inclusivity

Adaptive platforms and faster digital feedback enable teaching to be tailored to individual needs. This aligns with Universal Design for Learning, which promotes “flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge, and in the ways students are engaged” (CAST, 2018).

Resource access & Deeper insights

Digital learning provides instant access to a wide range of up-to-date resources and enables real-time monitoring of learner progress. This allows educators to identify gaps in understanding and offer targeted support. Digital tools can also be adapted to support learners with special educational needs, supporting the SEND Code of Practice aim of removing barriers so that children can “achieve the best possible educational outcomes” (DfE, 2015).

Digital inclusion

In the digital inclusion action plan, digital inclusion means “ensuring that everyone has the access, skills, support and confidence to participate in and benefit from our modern digital society.” (Department for Science, Innovation & Technology et al., 2025).

“To ensure digital inclusion in Welsh schools, efforts focus on equitable access, skill development, and inclusive design. Collaboration between government, educators, and communities is key to closing the digital divide.” (Welsh Government, 2022)

Barriers to digital inclusion

These barriers affect learners, families, and school staff, and their impact must be recognised and addressed to ensure equitable access to education and can limit participation and widen existing inequalities.

Lack of access to devices or internet (at home & school)

1.6 million people in the UK currently are living offline and around a quarter of the UK population have the lowest level of digital capability, meaning they are likely to struggle to use online services (Department for Science, Innovation & Technology et al., 2025). Without appropriate technology and connectivity, learners cannot fully engage with blended or online resources, which reinforces existing inequalities.

Low digital literacy /lack of training (staff & parents)

Without confidence in navigating platforms, apps, and online environments, users can feel overwhelmed. Vygotsky’s theory of scaffolding emphasises the importance of structured support, learners benefit when adults initially model and guide digital tasks, gradually enabling independent use (Bates, 2019, p.48). In Wales, programmes like Digital Communities Wales provide training not only to individuals but also to organisations and front-line staff to build digital skills and confidence, acknowledging that sustained support is vital for meaningful inclusion (Welsh Government, 2025).

Accessibility challenges

Accessibility challenges including language, age-related needs, and additional learning needs also present barriers. Inclusive design and Universal Design for Learning principles support the creation of digital environments that can be accessed by users with diverse needs, ensuring equitable opportunities to learn (CAST, 2018).

Economic issues

Economic barriers such as the cost of devices, broadband, and software further exacerbate exclusion, reinforcing attainment gaps as better-resourced peers can practise more often. In schools, budget pressures and ageing infrastructure mean there are not always enough up-to-date devices or robust Wi-Fi, constraining teachers’ capacity to integrate digital activities routinely across the curriculum rather than as occasional add-ons. While Welsh Government investment through school programmes such as Hwb and free access to tools

like Microsoft 365 helps reduce costs for learners, addressing economic inequality remains essential to ensure that learners can continue digital engagement outside the classroom (Welsh Government, 2025).

What does digital inclusion look like?



Ofcom (2023) highlights ongoing inequalities in access to digital devices and connectivity, reinforcing the importance of inclusive digital inclusion.

Digital Communities Wales and the Digital Inclusion Wales grant aim to address these barriers by providing digital skills training and resources to support people with basic digital confidence, reflecting policy efforts to embed inclusion across sectors (Welsh Government, 2025).

Children have the right to non-discrimination, access to information, freedom of expression, and education (Children's Commissioner for Wales, 2019) without equitable access to technology and digital literacy, children and young people are excluded from learning, participation, and protection in an increasingly digital world!

Reference List

Bates, B. (2019). *Learning Theories Simplified*. 2nd ed. London: Sage, p.48.

CAST (2018) *Universal Design for Learning Guidelines version 2.2*. Wakefield, MA: CAST. Available at: <https://udlguidelines.cast.org> (Accessed: 1 January 2026).

Children's Commissioner for Wales (2019). *UNCRC*. [online] Available at: <https://www.childcomwales.org.uk/uncrc-childrens-rights/uncrc/>. Accessed: 3 January 2026

Department for Science, Innovation & Technology et al. (2025) *Digital Inclusion Action Plan First Steps*. Available at: https://assets.publishing.service.gov.uk/media/67bdc3edb0d253f92e213c47/digital_inclusion_action_plan_first_steps.pdf. (Accessed 19 November 2025)

Fischer, M. (2020) *A two girls using laptop with classmates*. Available at: <https://www.pexels.com/photo/a-two-girls-using-laptop-with-classmates-5212695/>. Accessed: 4 January 2026

Ofcom (2023) *Children and parents: media use and attitudes report*. London: Ofcom. Available at: <https://www.ofcom.org.uk/research-and-data/media-literacy-research/childrens> (Accessed: 1 January 2026).

Piaget, J. (1972) *The psychology of the child*. New York: Basic Books.

Vygotsky, L.S. (1978) *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Welsh Government (2020) *Digital Competence Framework*. Cardiff: Welsh Government. Available at: <https://www.gov.wales/digital-competence-framework> (Accessed: 1 January 2026).

Welsh Government (2021) *Additional Learning Needs Code for Wales*. Cardiff: Welsh Government. Available at: <https://www.gov.wales/additional-learning-needs-code> (Accessed: 1 January 2026).

Welsh Government (2022) *Curriculum for Wales: Framework guidance*. Cardiff: Welsh Government. Available at: <https://www.gov.wales/curriculum-for-wales> (Accessed: 1 January 2026).

Welsh Government (2022) *Digital Inclusion Progress Report: towards a digitally confident Wales*. Available at: <https://www.gov.wales/digital-inclusion-progress-report-towards-digitally-confident-wales-html> (Accessed: 19 November 2025)

Welsh Government (2022) *Digital Strategy for Wales*. Available at: <https://www.gov.wales/digital-strategy-overview> (Accessed: 19 November 2025)

Welsh Government (2025) *Digital Strategy for Wales*. Welsh Government. Available at: <https://www.gov.wales/digital-strategy-wales-html> (Accessed: 1 January 2026). [GOV.WALES](#)

Welsh Government (2025) *Digital inclusion overview: Digital Inclusion Wales & grants*. Cardiff: Welsh Government. Available at: <https://www.gov.wales/digital-inclusion-overview> (Accessed: 1 January 2026). [GOV.WALES](#)

Welsh Government (2025) *New grants to help people become confident in using digital technology*. Cardiff: Welsh Government. Available at: <https://media.service.gov.wales/news/new-grants-to-help-people-become-confident-in-using-digital-technology> (Accessed: 1 January 2026).

Transforming Teaching Through Hwb

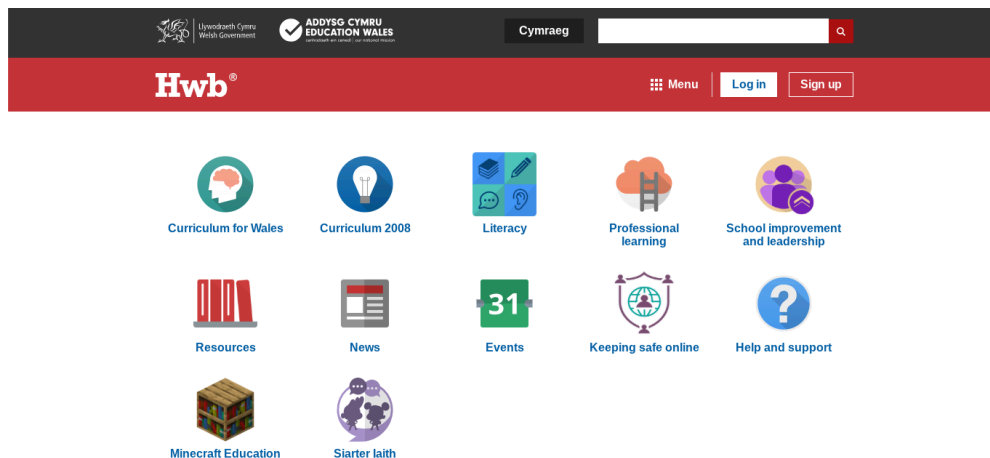
Ever heard or used the software Hwb? If you've ever been to a school, worked in a school or have children in a school in Wales since 2012, then you probably have (Welsh Government, n.d). If not, don't worry, you will definitely know what it is and how it supports primary students after reading this blog!

Access Hwb here: <https://hwb.gov.wales/>

Why is digital learning important?

Digital learning is vital for primary children, helping them build essential skills for education and life. In Wales, digital competence is valued as highly as literacy and numeracy (Welsh Government, 2022). Children are building foundational skills, and digital learning helps enhance literacy, numeracy, creativity, and problem-solving through engaging and interactive experiences. Early exposure to safe and guided use of online tools also helps children begin to understand essential aspects of citizenship in a connected world, including online safety, privacy, and responsible communication. Embedding digital learning in everyday teaching, ensures that learners become confident, creative, and critical users of technology from an early age.

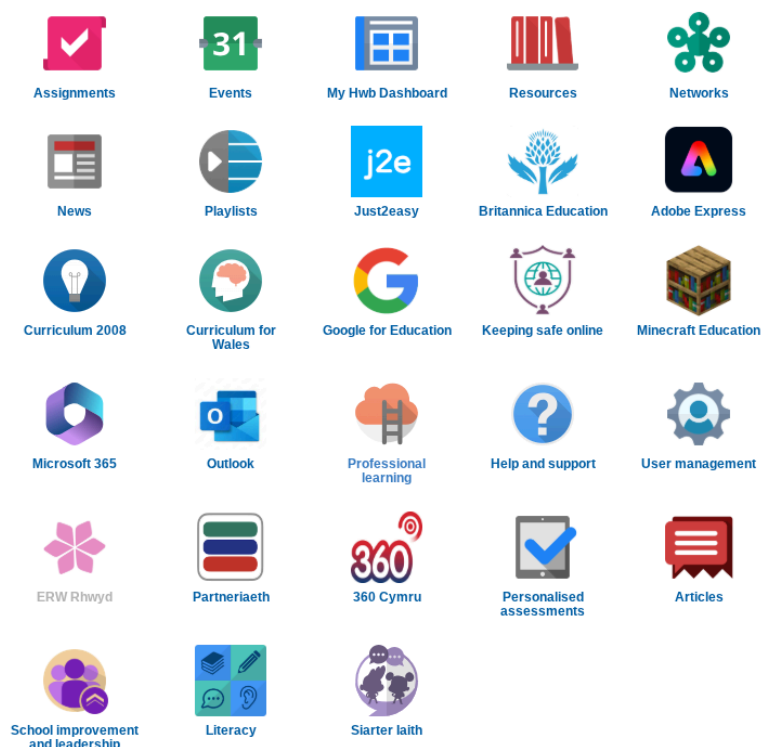
What is hwb?



Featured

Hwb is a key “bilingual digital platform provided by the Welsh Government to all maintained schools to support teaching and learning through the Curriculum for Wales” (Welsh Government, 2022). By offering a seamless, single login experience, Hwb provides access to a comprehensive suite of educational resources and services through English and Welsh (Welsh Government, 2022). Its ability to meet diverse learner needs by giving secure access to high quality tools, while also opening space to integrate artificial intelligence for personalisation, creativity and efficiency.

Access to all this!



(Welsh Government, 2014)

How can it be used?

Teachers	Students
Supporting in planning, assessing & delivering lessons	Access learning activities and resources set by their teacher
Share resources, assignments, and feedback with pupils	Create and share work
Integrate digital tools across subjects to support the Digital Competence Framework	Collaborate with peers through shared documents, presentations, or simple discussion tasks
Support differentiation and inclusion using accessibility tools	Learn about online safety through built-in guidance and age-appropriate content
Communicate & share resources with parents	Develop digital skills (typing, researching safely, understanding and presenting information)
Access professional learning, guidance, and curriculum resources	Support independent and self-paced learning through interactive apps

Digital Competence of Primary Learners

Learners in Wales focus on building foundational skills e.g. safe device use, basic navigation, & simple content creation before advancing to KS2 e.g. logging into Hwb, saving files and personalising, and spotting online dangers. Teachers are guided through the Digital Competence Framework (DCF) which outlines the progressive expectations.

Digital Competence Framework Foundation Phase		Nursery	Reception	Year 1	Year 2
Strand	Citizenship – Through these elements learners will engage with what it means to be a conscientious digital citizen who contributes positively to the digital world around them and who critically evaluates their place within this digital world. They will be prepared for and ready to encounter the positive and negative aspects of being a digital citizen and will develop strategies and tools to aid them as they become independent consumers and producers.				
Citizenship	Element	With increasing independence learners are able to:	With increasing independence learners are able to:	With increasing independence learners are able to:	With increasing independence learners are able to:
	Identity, image and reputation	distinguish between someone they know and someone they have never met, e.g. this links to personal and social education (PSE)/well-being and would form part of 'Stranger Danger' education	- recognise that actions have consequences and identify simple rules to keep them safe (offline and online), e.g. classroom rules/charters should incorporate digital and non-digital rules - recognise that data can be shared online, e.g. with adult support, find images of themselves and others for instance on the school website/school social media page, etc.	understand that some websites ask for information that is private and personal, e.g. identify private and personal information and discuss how to handle requests for private information – not disclosing full name, address, date of birth, school	- understand that information put online leaves a digital footprint or trail, e.g. explain the meaning of digital footprint or trail and encourage them to think critically about the information they leave online - identify the steps that can be taken to keep personal data and hardware secure, e.g. understand usernames and passwords, why we have them and how they are kept safe
	Health and well-being	use digital devices and media with care, e.g. name a variety of digital devices and handle appropriately	talk about everyday use of devices and digital media, e.g. identify a range of media and digital devices from familiar experiences, and make simple observations about their uses	use digital devices within a controlled environment, time and context, e.g. use for a given time limit and specified outcome	begin to identify and explain the advantages and disadvantages of digital media and devices on their lives, e.g. on their physical and mental well-being
	Digital rights, licensing and ownership	- add their name to digital work by using initial letter, e.g. type the first initial of their name on a keyboard - identify some work that belongs to others, e.g. find a photograph/picture created by a familiar peer/adult	- add their name to digital work, e.g. type their first name on a keyboard - find the name of the author on digital work	add their name and the date to work they have created, e.g. type their first name and surname and add a date to pieces of work	add their name and the date to work they have created and give reasons why this is important, e.g. type their first name and surname, add a date to pieces of work and orally provide reasons for doing so
	Online behaviour and cyberbullying	- identify emotions of others on a range of digital software, e.g. talk about feelings and begin to recognise emotions; consider how actions and words can affect others; realise that behaviour has consequences; identify when they are angry, worried or frightened and know who to ask for help - give reasons for likes/dislikes of on-screen activities.	- explain how people can connect with others online, e.g. identify forms of communication (including digital) - use appropriate words and feelings, e.g. discuss words and feelings that could upset people – link to offline personal and social education (PSE) and well-being work.	- simply explain that digital technology can be used to communicate and connect with others locally and globally, e.g. text, image, photograph, video, newsletters, e-mail, web services - begin to identify similarities and differences between online and offline communication, e.g. follow same rules when communicating face-to-face and online - use appropriate words and feelings, e.g. discuss words and acts.	- use digital technology to communicate and connect with others locally and globally, e.g. text, image, photograph, video, newsletters, e-mail, web services - interact appropriately with others, e.g. follow the same rules when communicating face-to-face and online.

(Welsh Government, 2021)

To see more of the DCF follow this link:

<https://hwb.gov.wales/api/storage/a7d4a155-f704-4115-852a-4e9da264f99d/dcf-foundation-phase-211117.pdf>

How Hwb Meets Their Needs

Supports Engagement and Motivation

- Offer visual, auditory & hands-on learning opportunities.
- The colourful, interactive environment captures the interest of young learners.
- Minecraft, J2E, videos, and collaborative platforms allow children to explore ideas in different ways, supporting a range of learning styles and subjects.

Encourages Independent and Collaborative Learning

- Hwb empowers pupils to develop essential life skills.
- Students can engage in group activities, promoting teamwork, allowing them to share ideas and learn from peers.

- The collaborative aspect helps children understand the importance of communication and respect for diverse opinions.
- Individual tasks encourage them to take responsibility for their own learning and decision-making.

Supports bilingual and diverse needs

- Hwb promotes inclusion and accessibility for all students!
- Hwb's visual tools enhance confidence and independence.
- Accessibility ensures that children who may struggle can access high-quality materials that contribute to their understanding.
- By embracing different learning preferences, every student feels valued and included in the classroom, fostering a sense of belonging and community among peers.
- Supports mixed ability environments by providing age appropriate digital tools that enable differentiation and inclusive practice, particularly for pupils with Additional Learning Needs (ALN).

Develop essential life skills

- Helps children develop essential life skills e.g. communication, collaboration, and digital safety awareness.
- By using Hwb, students can practice problem-solving and critical-thinking skills in a safe and supportive environment.
- By using Hwb, students can practice problem-solving and critical-thinking skills in a safe and supportive environment
- Learning how to use technology responsibly from an early age supports online wellbeing and builds confidence.
- Lays strong foundations for future learning by preparing children to use technology purposefully, safely, and effectively both in and beyond the classroom.

Ease of Use

- Breaks down digital barriers through single sign-on access and consistent availability both at home and in school
- User-friendly interface, young learners can easily navigate the platform, access resources and complete tasks independently.
- Balance between independence and collaboration helps students grow confidence and capability.

Supports Differentiation and Personalised Learning

- Teachers can monitor progress and adapt lessons to better fit their students' interests, which further enhances motivation and promotes a love for learning from a young age.
- Supports teacher planning through the integration of Microsoft 365 tools, including Copilot.
- Allows teachers to focus more on delivering engaging learning experiences while ensuring planning remains inclusive and purposeful.
- When used professionally and ethically, AI within Hwb can enhance teacher efficiency without replacing pedagogical judgement.

Limitations and Challenges

Technical and Access Issues

- Many learners lack reliable internet connections or access to devices at home.
- Schools often face challenges in maintaining and updating their technology, leading to outdated tools that don't serve the needs of students well.
- Without reliable access and functioning technology, the potential benefits of digital learning can be lost, and some may fall behind.

Developmental Challenges for Younger Learners

- Young children may struggle with using digital tools effectively, as they are still developing their cognitive and motor skills.
- Their attention spans can be short, making it hard for them to engage with long online sessions or complex applications.
- Younger students may not yet have the critical thinking skills needed to evaluate online information.

E-Safety and Online Behaviour

- Younger learners often do not fully understand the risks associated with being online.
- They may share personal information without realizing the potential dangers.
- Schools have a responsibility to teach students about safe online behavior and how to navigate digital spaces responsibly.

Technological advancement

- As technology continues to evolve, educators must stay updated on the latest trends and risks arising.
- This ongoing education is crucial to ensure young learners enjoy the benefits of technology while staying safe and secure online.

AI technologies, such as copilot, require careful consideration in a primary setting. However, at this stage, use of AI tools is not essential for primary learners, particularly those in foundation phase, where the focus remains on developing foundational skills, digital competence and critical thinking.

As the national platform, Hwb is a true game-changer for young explorers!

References

Welsh Government. (no date). *Timeline - Hwb*. Available at: <https://hwb.gov.wales/timeline>. Accessed: 30 December 2025

Estyn (2018) *Digital competence framework: An evaluation of implementation*. Cardiff: Estyn.

Welsh Government (2022) *Curriculum for Wales framework*. Cardiff: Welsh Government. Available at: <https://www.gov.wales/curriculum-for-wales> Accessed: 30 December 2025.

Welsh Government (2022) *About us - Hwb*. Available at: <https://hwb.gov.wales/about-us/>. Accessed: 30 December 2025

Welsh Government (2021). Digital Competence Framework Foundation Phase. [online] Available at: <https://hwb.gov.wales/api/storage/a7d4a155-f704-4115-852a-4e9da264f99d/dcf-foundation-phase-211117.pdf> Accessed: 31 December 2025.

Welsh Government (2014). Hwb. [online] Gov.wales. Available at: <https://hwb.gov.wales/>. Accessed: 29 December 2025