Digital Proficiency Kit (DPK)

Enabling STEAM Learning Through the Open Web

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Vision & Purpose

- Empower teachers & students to create meaningful web artefacts

- Integrate HTML/CSS/JS skills into interdisciplinary STEAM contexts

- Build digital competence aligned to DigComp 2.2 (creation, problem solving, collaboration)

- Keep everything lightweight: runs in any modern browser (no build pipeline)

What We've Built So Far

- Core module set (01–07): Intro, HTML, CSS, JavaScript, Data Viz, Creative Projects, Green STEAM Challenge

- Each module: outcomes, example code, guided practice, independent tasks, teacher notes

- Parallel Teacher Toolkit: lesson plans, rubrics, adaptation guidance

- Foundation docs: competence map, curriculum map, conceptual framework

Repository Architecture (Learner Side)

`digital-proficiency-kit/`

- `modules/01-introduction-to-the-web/` → units, examples, tasks, teacher-notes
- Consistent folder naming: lowercase, hyphenated
- `docs/` → competence-map, curriculum-map, conceptual-framework
- `assets/` → shared images/media

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Module Anatomy

- Units: `unit-X.Y-topic.md` (concept focus, outcomes, tutorial narrative)

- Examples: runnable `.html` / `.css` / `.js` snippets (semantic, accessible)

- Tasks: guided + independent creation with acceptance criteria

- Teacher Notes: differentiation, assessment suggestions, reflection prompts

Pedagogical Framework & Competence Mapping

- DigComp 2.2 alignment: content creation, collaboration, safety, problem solving

- Learning outcomes use action verbs (describes, constructs, implements)

- Progression: conceptual understanding → structured practice → creative application → reflection

- Embedded reflection prompts to consolidate metacognition

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Teacher Toolkit (Companion Repository)

- Mirrors module numbering for quick cross-reference

- Provides: module overviews, unit lesson plans, assessment rubrics

- Emphasis on adaptability (mixed ability, time constraints, hybrid learning)

- Encourages teacher professional reflection & iterative improvement

Achievements (To Date)

- Structured multi-module scaffold completed

- Integrated teacher materials

- Established consistent naming & folder conventions

To Do Next

- Supporting learning materials for teachers

- …

Thank You!