

Module 2

MODULE PLAN AND CONTENT

Computational thinking / Basic Digital Skills



MODULE PLAN

Module Plan	
Module Title	Computational thinking and Basic Digital Skills
Duration	3 hours (total)
Learning Objectives	By the end of this module, participants will be able to • Understand the basic principles of computational thinking: decomposition, pattern recognition, abstraction, algorithm design • Understand what basic digital skills are and how they support computational thinking in everyday life • Try out essential digital skills through practical activities: working with devices, searching, communicating, and staying safe online
Lesson Plan	1.1. Digital Design & Development Basics Training Module for Deaf Youth Duration: ~180 minutes (3 topics × 50 minutes and 2 breaks × 10 minutes) 1. Computational thinking (50 minutes) Objective:

Module Plan	
	Understanding what CT is and why it matters. Main Points to Cover: • What is computational thinking? • Where is it used? (school, work, everyday life) • Visual overview of the 4 main components: Decomposition, Patterns, Abstraction, Algorithms Activity: “ CT Relay” • Participants in teams will understand and apply the principles of computational thinking in solving everyday tasks using digital tools (Google Slides, Canva, Miro) • Each team is given a simple task (e.g., "Plan a trip" or "Prepare a party"). • Team members take turns (relay style), each adding one step to a shared digital document: problem decomposition, pattern search, focus on important details (abstraction) and create a clear procedure (algorithm) • The teams will present their solutions and explain how they applied each principle. Teaching Methodology: • Presentation + visual diagrams • Teamwork • Use of simple visual examples 2. Basics Digital Skills (50 minutes)

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	Objective: Develop practical digital literacy for everyday communication, information access, and work readiness. Main Points to Cover: • What are digital skills? (devices, internet, email, safety) • Why are they important? • Overview of key tools: Google Search, email, cloud storage, social media, basic office software • What is online safety and digital etiquette? Activity: "Digital Challenge" Teams complete short tasks using real tools: • Find information online • Write and send an email (simulated) • Organize files in cloud storage • Identify a phishing email example • Role-play a respectful online conversation Teaching Methodology: • Real-device practice (phone/tablet/laptop) • Group collaboration • Visual guides and screen demos

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	• Reflection: “Which of these skills do I use every day?” 3. CT + Digital Skills in Action (50 minutes) Objective: Use computational thinking principles while solving real-life tasks using digital tools. Understand how CT helps plan, structure, and improve digital actions and choices. Main Points to Cover: • How does CT help with digital tasks? ◦ Decomposition = breaking a digital task into steps ◦ Patterns = recognizing repeated actions or habits ◦ Abstraction = focusing on what matters (e.g., key info in a message) ◦ Algorithms = creating clear instructions (e.g., how to share a file or join a video call) • Everyday digital actions can be improved by planning with CT principles Activity: “Plan it. Do it.” • Step 1: Plan (CT Phase – 15 min) ◦ Each team receives a real-life digital scenario (e.g.): ▪ Share a file with your team using Google Drive ▪ Create a short event invitation and send it by email ▪ Check if a message is a phishing scam ◦ On a shared board (Slides, Canva, Jamboard), they: ▪ Break the task into steps

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	▪ Identify patterns (e.g., always attach file before sending) ▪ Focus on key details (abstraction) ▪ Write a simple algorithm (e.g., click → upload → link → email) • Step 2: Execute (Digital Action – 20 min) ○ Participants follow their algorithm and actually complete the task using real devices ▪ Share a file ▪ Send a sample email ▪ Fill in a fake phishing report ○ Instructors assist as needed • Step 3: Present & Reflect (15 min) ○ Teams present their process and results ○ Reflection questions: ▪ What CT steps helped you organize your actions? ▪ Did planning prevent confusion or mistakes? ▪ Could your “digital algorithm” be reused in the future? Teaching Methodology: • Hands-on work with digital tools • Visual templates for planning

Module Plan	
	• Guided teamwork and independent execution • Emphasis on logic, clarity, and digital literacy
Materials Needed	▪ Laptop or tablet ▪ Internet connection ▪ Vocabulary ▪ YouTube ▪ Projector ▪ Printed materials (optional for support)

2.

MODULE CONTENT

Content	Description	Content
Lesson Content	Digital Literacy	Digital literacy means having the knowledge and confidence to use digital tools in a safe, smart, and responsible way. It helps you work, learn, communicate, and stay safe online. Key Digital Terms: • Computational Thinking (CT): A way of solving problems step by step • Decomposition: Breaking big tasks into smaller parts • Patterns: Finding repeating actions or logic • Abstraction: Focusing on important details • Algorithm: A clear plan or set of instructions • Digital Devices: Smartphones, tablets, laptops • Internet Use: Browsers, search engines, links • Communication Tools: Email, Zoom, Teams • Office Apps: Word, PowerPoint, Google Docs • Cloud Storage: Google Drive, OneDrive • Cyber Security: Recognizing scams, protecting passwords • Digital Etiquette: Being polite and respectful online

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		Task Tools: Calendars, to-do lists, Trello
Video summary YouTube	Lessons	Introduction to computational thinking – https://youtu.be/Q910tyRbU7g?si=6nrFwPKM01xRDZEO Basic Digital Skills – https://youtu.be/it70v7RunqE?si=odx2KCC4RAw9hKoA
	Vocabulary	Computational thinking - https://youtu.be/0iIlANteKsc?si=z1jUrbKFTCs-_25p Decomposition - https://youtu.be/MY98RarkpcA?si=kGLu_G7Zqv718YRm Pattern Recognition - https://youtu.be/eMlOifCUYaM?si=e6ToQiJy2VMNoiSX Abstraction - https://youtu.be/vsVQqE5P9Bs?si=3bfBivb74mIReudy Algorithm - https://youtu.be/Ld_iFKCxeS8?si=edBrECqmEsywKCqo Cloud Storage - https://youtu.be/GPVztgeYrQg?si=79nW0f8yD5beD56y Cyber Security - https://youtu.be/AiynE2-RbGY?si=YMkvV7WD54WdIyLf
Activity		1. Group Activity “Digital Task Relay” Goal: Learn how to organize and complete everyday digital tasks using CT principles. - Participants work in small teams. - Each team gets a simple digital task (e.g., “Send an email with attachment”, “Organize files in Drive”, “Join an online meeting”).

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		• In relay style, team members take turns adding one step to a shared planning board (Google Slides, Canva). • Teams present their final plan and reflect on the CT steps used.
		2. Role-Play: “Online Communication Simulation” Goal: Practice digital etiquette and communication tools. • Each team simulates a digital situation: ◦ Replying to a group email, ◦ Asking for help in a polite way, ◦ Starting a Zoom call. • Roles: sender, receiver, observer. • After acting it out, teams discuss: ◦ Was it clear? ◦ Was it respectful? ◦ What could be improved?
		3. Real-Life Scenarios: “Solve it with Digital Skills” Goal: Apply CT and digital tools to real-life problems

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		- Participants receive individual or pair-based tasks: “Find reliable info about travel online” “Create a basic event invitation” “Detect a fake website or phishing email” - Each task requires: - A plan (algorithm) - Use of one or more tools - Short reflection: What helped you? What was difficult?
Assessment	Quiz	1. What is the main advantage of decomposition? A) It speeds up code writing B) It doesn't help at all C) It helps solve big problems by breaking them down ☒ D) It makes problems more complicated
		2. Which of these is a good example of cloud storage? A) Microsoft Word B) Google Drive ☒

Content	Description	Content
		C) Facebook D) Calculator
		3. When do we use abstraction?? A) When we want to focus on important details ☒ B) When we want to show everything C) When we want to remember details D) When we write stories
		4. Which of these is an example of an algorithm? A) Guessing answers B) Random selection C) Clothing color D) Cake recipe ☒
		5. Why is it important to recognize phishing emails? A) Because they help you clean your inbox

Content	Description	Content
		B) Because they offer discounts C) Because they can steal your personal data ☒ D) Because they are fun to read
		6. What is a polite rule when sending emails or messages online? A) Be respectful and clear ☒ B) Use ALL CAPS to be seen C) Ignore greetings and signoffs D) Always send files without asking