

Why use unplugged activities?

Being computer literate does not mean simply knowing how to manage a word processing program or do a Google search. It should include an understanding of the principles on which computers and networks operate.

The Computer Science Unplugged movement introduces non-technical people to computer hardware and software concepts that drive the technologies we use. They are designed to be physical tasks that allow students explore computer science concepts in interesting and engaging ways.

They incorporate physical activity, asking students to move and gesture, run and hunt, in an effort to embody a computer's operation. It employs real-life objects—crayons, string, and chalk, among other common items to help explain concepts like data and memory. Unplugged activities also allow for social interaction among students. Teachers are encouraged to allow children to discover answers for themselves while still offering plenty of guidance and feedback.

Unplugged activities build on a child's computational thinking. Computational thinking is the ability to understand and apply the fundamental principles on which computers and networks operate. Building these abilities will allow students to operate various software and hardware despite the frequent changes. When the computer is taken out of the picture even students as young as five are given the opportunity to explore concepts such as algorithms and binary code.

Some unplugged resources available

<http://csunplugged.org/>

<https://code.org/>

<https://www.digitaltechnologieshub.edu.au/>

<https://www.teacherspayteachers.com/Product/Unplugged-Activity-Bee-bot-Beebot-A4-2721492>

<https://www.teacherspayteachers.com/Product/Build-Your-Own-Computer-Activity-2949758>

<https://www.teacherspayteachers.com/Product/Hour-of-Code-Coding-Dances-for-Brain-Breaks-Unplugged-or-Plugged-Versions-2899331>

<https://www.teacherspayteachers.com/Product/Map-Skills-Compass-Directions-Coding-Unplugged-Challenge-STEM-1885093>

http://www.slate.com/articles/technology/future_tense/2014/08/computer_science_unplugged_teaching_computational_thinking_without_computers.html

<https://www.teacherspayteachers.com/Product/Unplugged-Coding-All-Year-Growing-Bundle-2906609>

<https://code.org/curriculum/unplugged>

<https://au.pinterest.com/pin/189291990568679695/>

Unplugged ideas-

- Sorting data into sets
- Treasure maps
- Human robots
- Battleships
- Mazes
- Algorithms for any everyday task
- Barrier games