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DISCLAIMER
The statements made and the views expressed in this leaflet should not be regarded as the official position of the European Commission.
Why Computational Thinking?

Computational Thinking is a shorthand for “thinking as a computer scientist”, that is using the concepts of computer science to formulate and solve problems.

Computational Thinking has increasingly gained attention in the educational field in the past decade. Despite the widespread interest in developing Computational Thinking at all levels of education (and especially in compulsory education), and the increasingly large number of public and private initiatives, the successful integration of CT in school curricula is still facing open issues and challenges: Is it possible to define CT as a key skill for the current century? What are its characterizing features? What are its relation to programming and computer science, on the one side, and to digital literacy, on the other? How should skills in this field be assessed? How should teachers be prepared to best integrate it into their teaching practice?

"To reading, writing, and arithmetic, we should add computational thinking to every child’s analytical ability.”

( Jeannette Wing, 2006)

Aim

CompuThink is an exploratory study on educational approaches to developing Computational Thinking. The aim is to provide a comprehensive overview of recent research findings, grassroots and policy initiatives for developing computational thinking as a key competence for compulsory education.

Methodology

- An extensive review of academic and grey literature and policy documents
- Semi-structured interviews with experts, policy makers and stakeholders
- A final report summarizing research findings on the impact of CT on learning and teaching patterns, approaches and paradigms in primary and secondary schools in Europe