

What is computational thinking?

Computational thinking is integrating the power of human thinking with the capabilities of computers.

The essence of computational thinking is thinking about data and ideas, and using and combining these resources to solve problems. Teachers can encourage students to “think computationally” by moving technology projects beyond “using” tools and information toward “creating” tools and information.

The creation of tools and new information requires thought processes about manipulating data, using abstractions, and lots of computer science concepts. To encourage computational thinking in the classroom teachers must ask different questions related to problem solving and the use of technology. They must ask:

- What are the power and limit of human and computer intelligence?
- How difficult is the problem?
- How can it be solved?
- How can technology be applied to the problem?
- What computational strategies might be employed?

Students should be able to reproduce simple examples of computational thinking.

Students should know how information like numbers, letters, words and pictures can be stored in computers.

Students should know examples of algorithms.

- You have been divided into internationally mixed groups.
- Read the texts you have been given. Not in the groups, but individually.
- Use the texts given to you and other information available on the internet to create a presentation explaining and discussing the subject explained above.
- Be very critical of the origins of the information you find on your own.
- You have until 11:00 to complete the task. At 11:00 you will choose which group/groups your group will present the results to.
- NB: At the end of the week your knowledge of the subjects will be tested.
- Upload your presentation and notes to:
<https://drive.google.com/open?id=1Kk7Z162-8g-f8YITYPh-LlnIGpyy4vQ6>