Digital Competences in primary and secondary education in Greece.
The core learning subjects of Informatics and ICT.

Nikolaos Grammenos
ICT Consultant @ Greek Institute of Educational Policy

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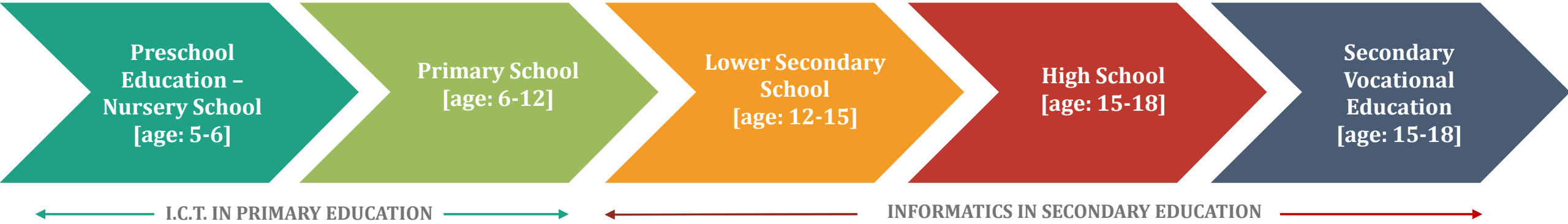
INFORMATICS AND ICT AS CORE LEARNING SUBJECTS IN GREECE

21st CENTURY COMPETENCES – DIGITAL SKILLS FOR STUDENTS IN GREECE



Curricula - 21st Century Competences integration

- Addition of the 21st century skills into the existing curriculum as new subjects or as new content within traditional subjects.
- Integration of them as cross-curricular competencies that both underpin school subjects and emphasize the acquisition of wider key competencies.
- Inclusion of them in a new curriculum that is comprised of school subjects with transformed structure in a wider context of schools being considered as learning organizations

Digital Skills - 21st Century Active Citizens

European Commission has proposed the conceptual reference model for the Digital Competence Framework (DCF) for Citizens [DigComp] as a “common language” for the competencies needed for employment, personal development and social inclusion.

INFORMATICS AND ICT AS LEARNING SUBJECTS IN GREECE

Introduced in 1992 in Greek High School

The main goals of Informatics and ICT are to develop knowledge-based learning abilities, critical thinking, collaboration and communication skills.

Every year, specific instructions for the Informatics and ICT learning subjects are provided that promote the exploitation of modern educational approaches and digital educational resources.

It is recommended to adopt active educational techniques and exploit authentic real world examples, while it can be supported by the use of learning scenarios and learning objects.

Aesop Advanced Electronic Scenarios Operating Platform

(http://aesop.iep.edu.gr/)

PHOTODENTRO

(http://photodentro.edu.gr/)

Greece – ICT in Primary Education

Preschool Education – Nursery School [age: 5-6]

The use of ICT by nursery school pupils contributes to:

- The development of cognitive skills (critical thinking, reasoning, metacognition) alongside collaboration, communication, problem-solving, coordination of movements, creative thinking, and self-assessment skills.
- The building of self-esteem and confidence.
- The development of self-action and taking initiatives.

Greece – ICT in Primary Education

Primary School [age: 6-12]

Four specific dimensions (technological, cognitive, problem-solving, social skills):

- ICT in the Modern World: I know, create and express myself with ICT
- Communicate and collaborate with ICT: I manage and create
- Investigate, discover and solve ICT problems: I search information, communicate and collaborate, use concept maps, computer programing and robotics, projects
- ICT as a social phenomenon: Netiquette, internet safety, cyber-bullying

COMPUTATIONAL THINKING

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

(Jeannette Wing, 2006)

Greece – Informatics in Secondary Education

Lower Secondary School [age: 12-15]

1st Grade	• Informatics in the Modern World - Basic Concepts • I create using word processing software • I look for information on the Internet, communicate and collaborate • I explore, discover and solve problems; I program Computing Devices and Robotic Systems
2nd Grade	• Informatics in the Modern World: Basic Concepts and Networks • I solve problems using spreadsheets • I create and express myself with multimedia and presentations • I program Computing Devices and Robotic Systems • I explore and collaborate on the Internet.
3rd Grade	• I investigate, design and solve problems: I program Computing Devices and Robotic Systems • I create, present, communicate and collaborate; I create documents and collaborate on online environments; I create presentations

Greece – Informatics in Secondary Education

High School [age: 15-18]

- 1st Grade: “Computer Applications”
- 2nd Grade: “Introduction to basic computer science principles”
- 3rd Grade: “Informatics”

Greece – Informatics in Secondary Education

Secondary Vocational Education - EPAL [age: 15-18]

- 1st Grade: “Computer Applications”
- 2nd Grade: “Introduction to basic computer science principles” & Informatics Sector
- 3rd Grade: “Introduction to basic computer science principles” & Informatics Sector with two specializations: (i) “Computer Software Technician”, and (ii) “Computer and Networks Technician”.

Greece – Informatics in post-secondary Education

Post-secondary Vocational Education [age: 18-19]

Two specializations:

- “Computer Software Technician”
- “Computer and Networks Technician”

National Certificate of ICT

Principles taking into account in order for high school graduates to acquire comprehensive Informatics/ICT literacy

The acquisition of broader digital literacy
Investigation, critical thinking, developing capacities for the autonomous use of computational and network tools to solve problems, participate in the new social, economic and cultural environment in today's world.

The ICT Literacy
Active participation, collaboration and autonomous student's development in Informatics and ICT subjects.

The Utilization of Digital Technology
Connection between school knowledge and the skills of creative use of digital technology tools.

Turn to Open Technologies and Resources
Development of sharing practice.

Algorithmic/Programming/Coding
Primary school, Lower Secondary School, High School.

Developing Social Attitudes and Skills
Participation skills in today's digital environment. Modern digital culture, entrepreneurship and e-citizenship.

Thank you !

Nikolaos Grammenos @ Greek Institute of Educational Policy

Institute of Educational Policy
An Tsoha 36
Ampelokipoi, Athens
P.C. 115 21

Phone Num
213 1335 564
213 1335 100
213 1335 111 (FAX)

Email
ngrammenos@iep.edu.gr