Programming Example

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Subject: networking

- **School**: **Technical High school Computer science**

- **Class** : **3rd Year**

- **Unit**: **First**

Knowings:

- Have a basic Knowing abut various topics in networks study .
- Be able to speak about and comunicate in the specific language of the discipline (rich of technical terms)
- Be able to formalize abstract characteristics
- Be able to use acquired methodology in new situations
- Know adequately the topics in the program

skills:

- **Configure, install and menage processing system, data and network.**

- **Choose devices and instruments according to their technical specifications.**

- **Describe and compare the funcions of different electronic devices and instruments.**

Competences:

- Menage projects under the procedure and the standard planned by company system about quality and security managment.
- Use networks and computer science instruments in study and research.
- Analyze the value, the limits and the risks of various technical solutions for social, cultural life and pay particular attention to the security in life and work place, to the protection of the individual, environment, and territory.

Kind of teaching

- **What kind of lesson are you doing to do:**

frontal, flipped, discussion, conceptual maps…..

Educational instruments

What kind of instruments are you doing to use:

books, e-learning, games, LIM…

Remedial education

What kind of remedial education are you going to use for help students with difficulties.

Evaluation

With the followings criteria:

- **Individiual level of achieved goals (Knowings & competences)**
- **Progression from the starting point**
- **Interest & Attention**
- **Involvement**
- **Commitment**

Verifications

- **Gordon Moore (in 1965) said that every year transistors integrable in a single chip would double.**

- **In 1975 Moore had to change his law and said that from that moment the number of integrable transistors in a single chip woul double every 2 years.**

Program

The program depends on guide lines of the actual school system & what department meeting decides about minimum target for the students.

Program example

UNIT 1:
processing system architecture

UNIT 2:
Internal computer components

UNIT 3: ARDUINO

UNIT 4:
Network standard

Program example

UNIT 5:
Trasmission media

UNIT 6:
iP addressing

Program example

It is useful open CISCO platform and create a class of IT Essential

Useful sites to find interesting material to prepare lessons:

https://bubbl.us/

Brainstorm online with *Bubbl.us*. Easily create colorful mind maps to print or share with others.

Mind map can be very useful for student !

https://learningapps.org/

LearningApps is an intuitive application to create interactive modules to facilitate learning

Learning by playing!

https://nearpod.com/

Nearpod is an interactive classroom tool for teachers to engage students with interactive lessons.

Useful to get attention from students

Useful sites

https://www.symbaloo.com/

Save bookmarks and favorite websites online.

Built for educators, Symbaloo makes it easy to engage students by delivering the right content, in the right place, at the right time, to the right person.

Good for teachers & students.

https://kahoot.it/

Kahoot! is a free game-based learning platform that makes it fun to learn – any subject, in any language, on any device, for all ages!

Good expecially for younger students!

Useful sites

https://www.liveworksheets.com/

Make interactive worksheets from PDF, DOC...

Worksheets that listen, speak, correct themselves and save paper, ink and time.

http://www.sciencegamecenter.org/games/purposegames

PurposeGames is a website that allows users to play and create games in a variety of subject areas.

https://edpuzzle.com/

Intuitive video editor includes the ability for both teachers and students to add voice-overs, comments, resources, and quizzes to existing online videos.

http://www.imagechef.com/ic/word_mosaic/

To create a mosaic of words.

Useful to remeber technical words.

http://www.snappywords.com/

Online interactive English dictionary and thesaurus that helps you find the meanings of words and draw connections to associated words. You can easily see the meaning of each by simply placing the mouse cursor over it.