EXTRA: INTRODUCTION INTO TEXT-BASED CODING

Summary: Visual coding is amazing, but to become a real-world programmer, you also need to know real, text-based languages, such as Python, JavaScript, Java, Ruby …
In this activity (when there is time left), students try a hand at coding like a pro through the online free game Code Combat.

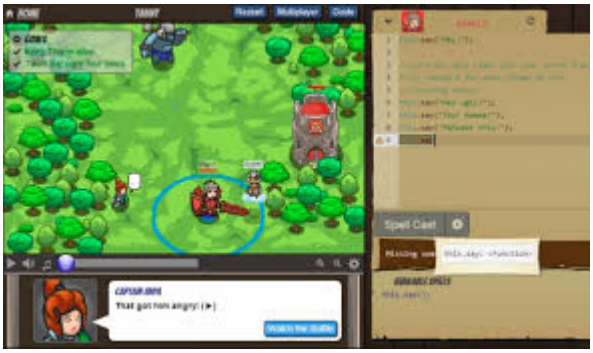
Timeframe: 30 to 60 minutes

Learning outcomes:

1.1 Algorithms
1.2 Sequences
1.3 Repetition and loops
1.4 Events and selection
1.5 Parallelism
1.6 Conditionals and logical operators
1.7 Mathematical operators
1.8 Variables and data management
1.9 Functions
2.1 Incremental & iterative work
Testing and debugging
2.3 Reusing and Remixing
2.4 Abstraction
2.5 Modularization
2.6 Information: collection & management
5.1 Problem identification
5.3 Implementation
5.4 Evaluation & reflection
5.5 Iteratio

Implementation:

Your students will surf to the website **http://codecombat.org** .
CodeCombat is a fun game in which you use code to vanquish enemies, such as trolls and ogres. Students create a new (free) account and choose what language they want to learn. We suggest choosing Python (one of the most used open-source coding language to create apps) or JavaScript (a language that is used on websites).



Next, the students will individually follow the instructions and move through increasingly difficult levels.

Materials:

- A computer with internet for each student