Python Activity

What is Python and how can you download it?

Python is a programming language that emphasizes code readability with the use of significant indentation. It can introduce students to:

- **Structured programming**: It uses structured control flow constructs of selection (if/then/else) and loops (while and for).
- **Object-oriented programming**: Each object is programmed separately, such as our character or obstacles.
- **Functional programming**: The program uses functions to work.

Below you can find ways to download the appropriate program for your needs.

- **Desktop app**: You can download Python for your computer from the link below:

https://www.python.org/downloads/

Follow the instructions based on your operating system.

- **Visual studio code**: You can download Visual studio code, a Python compiler, for your computer from Microsoft Store or Mac App Store.

Woman In Digital & Science quiz

Objectives of the activity

- Students will learn to work in teams.
- Students will be introduced to the concept of programming and algorithmic thinking.
- Students will understand how print and input functions work in Python.
- Students will be introduced to selection functions (if/else).
- Students will learn the concept of scoring and variables.

Tools and materials you will need

- Computers (laptop/desktop), in which the Python (or a Python compiler) is pre-installed.
- Internet connection so students can search for facts online, or books with information, or students can find information for the quiz as homework.

Activity description

Introduction

- **The theme is introduced to the students with questions such as: “Do you know any interesting**
- **fact for a woman in Science or Technology?”.**
- **Introduce the Python environment to the students.**
- **Introduce the print and input function of Python.**
- **Introduce the selection functions (if/else).**

Funded by the European Union

Activity

The aim of this activity is to create a quiz for women in Science or technology. The example below has a sample question and a scoring system.

- **Students create teams of 2-4 people.**
- At first students need to find the facts they are going to use for their quiz.
- Creating the description of the quiz, as shown below.

```
print("Welcome to the Women in Science and Digital Quiz!")
print("Answer the following questions by typing A, B, or C.")
```

- Students then can create a scoring system, by creating a variable named score.

```
# Variables
score = 0
```

- After that students can create their questions following the program below.

```
print()
print("Who was the first woman to win a Nobel Prize? ")
print("A. Rosalind Franklin")
print("B. Dorothy Hodgkin")
print("C. Marie Curie" )
print("D. Lise Meitner")
answer = input("Make a choice: ")
print()
if answer == "C" or answer == "c": #check if the player found the correct answer
    print("Correct! Marie Curie is the first woman to win a Nobel prize and the first person to win a Nobel prize in different categories (Physics and Chemistry)")
    score += 1
else:
    print("Wrong! Marie Curie is the first woman to win a Nobel prize and the first person to win a Nobel prize in different categories (Physics and Chemistry)")
```

- After finishing with the questions, students can add the final score to their program using the line below:

Funded by
the European Union

```
# Thank you message and score

print("Thank you for playing! We hope you enjoyed our quiz and learned more about women in Science!")

print("Your score is:", score, "/10")  #Change the number based on the number of questions
```

Funded by
the European Union