

TITLE: My game-project work

LEARNING SCENARIO	
School:	Duration (minutes): 90
Teacher:	Students age: 12

Essential Idea:	How to create a computer game?
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Topics:

- Pupils are directed to discuss the role of programming as affection. Pupils learn to identify the author values that the code reflects.

Aims:

- Pupils design and create a working computer game.

Outcomes:

- Pupils plan, anticipate, monitor, create and adjust programs.
- Pupils will be able to code a workable program and solve more complex problems by dividing them into smaller subproblems.
- Pupils learn more about using different kinds of variables and they create them.

Work forms:

- individual work
- work in pairs
- group work

Methods:

- presentation
- discussion
- interactive exercise

ARTICULATION**Course of action (duration, minutes)****INTRODUCTION**

Teacher explains and starts discussion with pupils:

If we want to program a game – we first need to understand what a game is.

A game we're programming on a computer or some other electronic device is a program just like any other, but it also has to meet two specific conditions:

- There has to be a player who can control some part of the program (game).
- The player has to have a goal he has to achieve in the program (game).

Any program that meets these two conditions can be called a game, but also every game that exists surely meets these two conditions.

It doesn't matter if we're talking about Fortnite or Apex Legends or CS:GO or perhaps Gran Turismo.

Every game is a program just like every other, but it also meets the conditions mentioned above.

MAIN PART**Topics for discussion:**

How can we make our own game?

Easily, by following a couple of steps:

1. Make a plan.

For starters we need to decide how our game will even look. In order to make this easier we can use these steps:

- Pick a theme for your game.
- Choose what your player should be doing in your game.
- Choose what the player needs to do in order to win or the advance in the game.

You can choose your theme by determining what your game will be about (i.e. will it be a racing game or a strategy or something in the first person genre), and you also need to choose a setting.

Will the game be in the daytime or the night?
In a closed space or an open one?
On the Earth or in Space?

2. Design your player.

If you're using for example Scratch, you need to design a Sprite for each of your players. Sprites are images that can appear in the main part of the program, and they can also be moved depending on the code.

In the bottom right corner of Scratch there's a button called „Choose a Sprite“, and after choosing your player you can customize him in detail.

3. Pick a background for your game and – code.

After using the „New Sprite“ button to choose a background of your game, you need to choose what your player will be doing, and then program it.

Typical Scratch games include those in which the player needs to answer questions, collect some objects, or maybe avoid others.

To start your coding you can choose the block „when green flag is clicked“, which means that the game will start when the player clicks on the green flag.

After this you can use all of the knowledge you have gathered in Scratch – and your imagination, to create any game you wish.

For inspiration you can see what others have created, for example here you can see examples of some simple games made in Scratch:

<https://scratch.mit.edu/projects/22469560/editor/>

EXERCISE 1

Forming teams to create a computer game.

Each team makes its own plan to create a computer game.

Each team makes a computer game.

EXERCISE 2

Each team presents its game.

Testing the game from other teams.

CONCLUSION

Pupils and teacher discuss and evaluate the presented solutions.

Methods		Work forms
<i>presentation</i>	<i>interview</i>	<i>individual work</i>
<i>discussion</i>	<i>demonstration</i>	<i>work in pairs</i>
<i>work on the text</i>	<i>role playing</i>	<i>group work</i>
<i>graphic work</i>		<i>frontal work</i>
<i>interactive exercise /simulation on the computer</i>		

Material:

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Literature

PERSONAL OBSERVATIONS, COMMENTS AND NOTES