Teaching programming in primary school:
curriculum, didactic methods, textbooks, online support
CodeInnova

Erasmus+

Project co-funded by European Union under Erasmus+ Programme

TITLE: Logical games

LEARNING SCENARIO		
School:	**Duration (minutes):**	**90**
Teacher:	**Students age:**	**11**

Essential Idea:	In everyday life many obstacles and problems are solved by recognizing and eliminating intruders.

Topics:

- Pupils begin to understand how code is always a mathematical problem-solving exercise and how it can possibly lead to ethical issues.

Aims:

- Developing computer thinking.
- Recognition and classification of events, beings and objects with regard to similar and different characteristics.

Outcomes:

- Pupils are encouraged to look for ways of expression that are suitable for collaboration.
- Pupils are encouraged to use their imagination to find creative solutions.

Work forms:

- individual work
- work in pairs
- group work

Methods:

- presentation
- discussion
- interactive exercise

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ARTICULATION
Course of action (duration, minutes)

INTRODUCTION

Teacher explains and starts discussion with pupils:

Objects, events and beings have multiple characteristics which define them. Some of these characteristics connect the with other things with which they make a cohesive unit.

In everyday life many obstacles and problems are solved by recognizing and eliminating intruders (the things that don't belong somewhere).

For example, when we get ready for school we check our time schedule and then we put in our bag only the things we will need for that day. If we don't do that then we won't be able to fit all the things we need in our bag and the bag will become too heavy.

MAIN PART

Topics for discussion

Smartphones have a touch-sensitive screen.
Fish live in the water.
Snowfall is made out of snowflakes.

Some characteristics of objects, events and beings make them stand out from others – they make them special and different than anything else.

An object, event, or a being which has characteristics different from anything else is called an intruder.

To better understand our surroundings we need to take a careful look at the things around us, and see their characteristics.

Scenarios for discussion

Look carefully at the objects in the classroom.
Give examples of intruder.
Present the common characteristics of the listed objects and the characteristics of the intruder. Presented examples discuss with pupils and teacher.

Think carefully at different events.
Give examples of intruder.

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Present the common characteristics of the listed events and the characteristics of the intruder. Presented examples discuss with pupils and teacher.

Think carefully at different beings.
Give examples of intruder.
Present the common characteristics of the listed beings and the characteristics of the intruder. Presented examples discuss with pupils and teacher.

Teacher explains and give instructions how to solve tasks in the handbook.

Pupils solve tasks and present their solutions.

Pupils in pairs or small groups can create online quiz on intruders by using web 2.0 tools (for example Kahoot, Wordwall, Genialy, etc.). Pupils can present and play their own quizzes and games.

Pupils and teacher discuss and evaluate the presented solutions.

CONCLUSION

To successfully find intruders, it is necessary to think carefully on common characteristics of objects, events and/or beings.

The teacher controls the pupils ' solutions to the tasks.
Together they repeat the strategy they used in solving today's tasks.

Methods   *Work forms*

presentation   *interview*   *individual work*
discussion   *demonstration*   *work in pairs*
work on the text   *role playing*   *group work*
graphic work   *frontal work*
interactive exercise /simulation on the computer

Material:

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Literature

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PERSONAL OBSERVATIONS, COMMENTS AND NOTES

Literature