Erasmus+

Project co-funded by European Union under Erasmus+ Programme

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

TITLE: Logic Games

LEARNING SCENARIO		
School:	*Duration (minutes):*	90
Teacher:	*Students age:*	10

Essential Idea:	**We solve logical exercises by analyzing the given problem, noticing rules and patterns and by applying them so we can come to a solution.**

Topics:

- Pupils can solve advanced logical problems with and without usage of technology.
- Step-by-step and conditional instructions and events are utilized in problem solving tasks.

Aims:

- Pupils create a program by using visual environment in which sequence, repetition, decision and input values are used.

Outcomes:

- The student describes the situations in their program, where the decision and input values should be used.

Work forms:

- individual work
- work in pairs

Methods:

- presentation
- discussion
- graphic work

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ARTICULATION
Course of action (duration, minutes)

INTRODUCTION

Teacher starts a discussion:

What are puzzles?

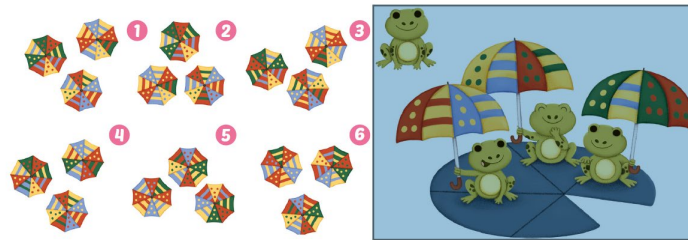What strategies do we apply when solving puzzles?

MAIN PART

Pupils solve tasks from the textbook.

For each task, pupils write a series of commands that lead to the solution of the task.
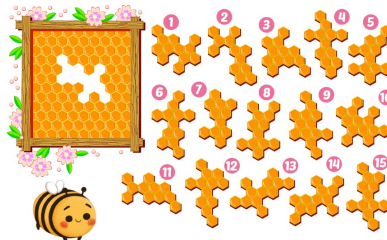
Pupils present their own strategy for solving a given task.
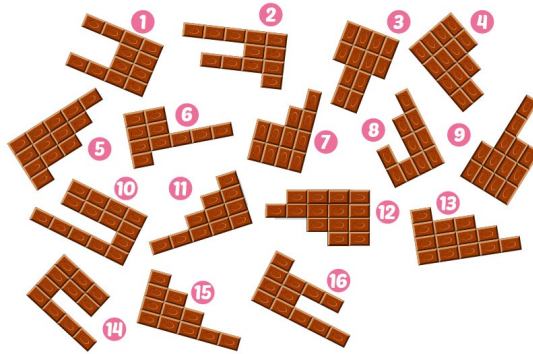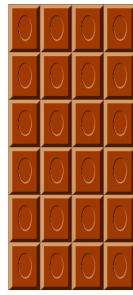
Task 1: Four Frogs

solution: 4

Task 2: Martha the bee

solution: 13

ARTICULATION

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Task 3: Tasty chocolate

solution:

3	16	7	11	10	12	14	15
1	2	4	5	6	8	9	13

Task 4: Where is Mark?

1st station: 3 3 1 =7

2nd station: 3 3 1 0 = 7

3rd station: 3 1 0 = 4

4th station: 3 3 0 = 6

5th station: 3 3 0 = 6

6th station: 3 3 3 = 9

Mark got on the bus in the third round.

Mark got off the bus at the sixth stop.

Pupils and teacher discuss and evaluate the presented solutions.

CONCLUSION

We solve logic exercises by analyzing the given problem, noticing rules and patterns and then applying them so as to come to a solution.

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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:

- textbook, notebook

Literature

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PERSONAL OBSERVATIONS, COMMENTS AND NOTES