Learning Scenario

Workshop 2: PBL, online quizzes and logical tasks

Learning Scenario Title	Addition to 5
Course/Grade	Mathematics 1st grade of primary school
Learning Outcomes	**General learning outcomes:** • Specify numbers 1 to 5 independently • Connect number and number words • Analyse and describe the image examples • Adopt a notation for the addition • Develop the abilities to compare, differentiate and conclude • Add up numbers to 5 **Specific learning outcomes oriented on algorithmic thinking** • Search, find and extract relevant information • Distinguish elements by attributes • Compare and classify the numbers we add
Aim, Tasks and Short Description of Activities	AIM: learn to add up the numbers to 5 TASKS: • Cognitive: learn the meaning of the sign +; adopt a notation for adding numbers; understand the concept of arithmetic operation; understand the concept of adding numbers. • Psychomotor: write addition operations using mathematical signs; develop the ability to apply the acquired knowledge. • Affective: develop the capacity for independent work, accuracy, consistency and precision; develop and stimulate curiosity. SHORT DESCRIPTION OF ACTIVITIES: Repeat numbers up to 5 and compare them through short Learning Apps computer games. Using the Kahoot! quiz recognize the exact mathematical notation of tasks given in the mathematical story. Add and subtract numbers up to 5 through the short Learning Apps computer games. Explore the ways in which we can sum up multiple numbers in a way that the sum is equal to 5 (problem solving). Test the knowledge with the interactive Wizer worksheet.
Keywords	Numbers 1, 2, 3, 4, 5, addition, equality.
Correlation and Interdisciplinarity	Croatian language (Little Red Riding Hood), Science (Orientation in space).

Duration of Activities	90 minutes	
Learning and Teaching Strategy and Methods	Dialogical method Demonstration method Method of writing Problem solving method Game Based Learning	
Teaching Forms	Frontal teaching Individual work Group work	
Tools	Kahoot! tools and Kahoot! quiz, Wizer, LearningApps.	
Resources/materials for the Teacher	Kahoot! tools, Wizer, LearningApps.	
Resources/materials for the Students	Kahoot! quiz, Wizer, LearningApps.	
Teaching summary	**IMPLEMENTATION OF ACTIVITIES** **1st activity: MOTIVATION - Two short computer games** Students will repeat numbers up to 5, count them and compare them. Example 1: Mathematical warming up (https://learningapps.org/display?v=p82852wi318) Example 2: Mathematical sequence (https://learningapps.org/display?v=p3k5fr3uk18) ANNOUNCEMENT OF OBJECTIVE: Announce that we will practice the addition of numbers to 5 **2nd activity: "Brainstorming!"** Using brainstorming method students give examples of using addition in everyday life. **3rd activity: "Kahoot!" Quiz** Through five questions from everyday life (supported by appropriate pictures) students need to find the correct numerical expression of mathematical word problems. Example 3: Kahoot! Quizz QUESTION 1: There were three birds on the wire and two more landed on the wire. How many birds are now on the wire? a. 1 + 2 = 3 b. 2 +3 =4 c. 3 + 1 =4	Duration 10 minutes 7 minutes 15 minutes

d. 3 + 2 = 5

QUESTION 2: There are three apples in the basket and one outside the basket. How many apples are there in total?

a. 1+ 3 = 5
b. 3 + 1 = 4
c. 2 + 1 = 3
d. 2 + 2 = 4

QUESTION 3: There is a pilot and three children in the plane. How many people are traveling by plane?

a. 2+ 2= 4
b. 3 +1 = 5
c. 4 +1 = 5
d. 1 + 3 = 4

QUESTION 4: Four cats are awake, and one is still sleeping. How many cats are there?

a. 4 + 1 = 5
b. 1 + 4 = 4
c. 2 + 3 = 5
d. 3 + 2 = 5

QUESTION 5: There are two pencils and two pens in the box. How many scribes are in the box?

a. 1 + 3 = 4
b. 4 +1 =5
c. 2 + 2 = 4
d. 3 + 1 = 4

4th activity „Let's add up to 5"
Using three games students practice the addition of numbers to 5.

Example 4: Color of the sum
(https://learningapps.org/display?v=pj7trtsia18)
Example 5: Adding up to 5
(https://learningapps.org/display?v=pyopr4nyj18)
Example 6: Mathematical puzzle
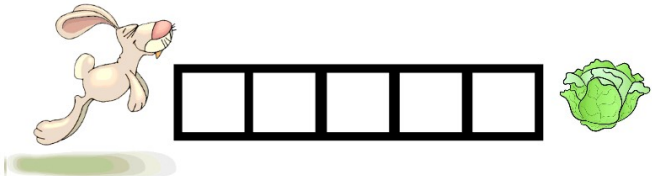(https://learningapps.org/display?v=p4108eap318)

5th activity „Problem-based learning"
The students work in groups to solve the following task:
Can we add various numbers to score 5? Explore.

20 minutes

20 minutes

	If YES, write down all possible solutions that you have found. If the answer is NO, explain why we cannot do this.	
	Students write down solutions on the paper. Representatives of the group present their solutions. The first group presents all the results. Other groups check whether they have found the same solutions. The other two groups present only solutions not presented by the firsts group of students and so on. The teacher checks the accuracy of the solutions and add additional solutions if necessary. The teacher declares the winners - the group that that found the most solutions.	10 minutes
	6th activity "WIZER worksheet" Students test their knowledge using Wizer worksheet. Example 7: https://app.wizer.me/learn/55YALZ	8 minutes
	7th activity "A task that encourages algorithmic thinking" The students should solve the following task: The rabbit wants the cabbage. The cabbage can be reached only by jumping two fields forward and one back. How many times a rabbit has to jump to reach the cabbage in the picture? 	
Annexes	Learning scenario in LePlanner: https://beta.leplanner.net/#/scenario/5d728ae780a288cd3abb8783 Example 1 – Mathematical warming up: https://learningapps.org/display?v=p82852wi318 Example 2 – Mathematical sequence: https://learningapps.org/display?v=p3k5fr3uk18 Example 3 – Kahoot! Quiz: https://create.kahoot.it/details/zbrajanje-brojeva-do-5/9717c21c-8043-4f9e-879c-f8a1885f3bf2 Example 4 - Color of the sum: https://learningapps.org/display?v=pj7trtsia18 Example 5 – Adding up to 5: https://learningapps.org/display?v=pyopr4nyj18 Example 6 – Mathematical puzzle: https://learningapps.org/display?v=p4108eap318 Example 7 - Worksheet: https://app.wizer.me/learn/55YALZ	

Examples and game references	Kahoot! https://kahoot.com/ (15.12.2018.) Learning Apps https://learningapps.org/(15.12.2018.) Wizer: https://app.wizer.me/ (15.12.2018.)