

MATHEMATICS



Addition

SEQUENCE 1

Age group	6-9 y.o
Prior knowledge	The pupil knows the names of the components of the addition operation: addend, addend, sum.
Materials needed	The addition box
Subjects	Addition up to 20. Addend, addend, sum.
Skills involved	Pupil can add
Time to carry out the sequence	1 h

Step 1: Listening to a story

The teacher reads the story "A Stellar Birthday" to the pupils. The story will allow children to become familiar with it in a gradual and funny way.

Step 2: Examine the contents of the box

Pupils get acquainted with the contents of the box and cut out domino pieces and 12 stars. Each star has a number from 1 to 12 written in the centre.



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Step 3: Creating addition tasks with domino pieces

The teacher conducts a discussion on how to divide the stars into two boxes so that there is enough space in both boxes. It is not wise to try because if there are too many.

Many stars in one box, they will explode. We use domino pieces to learn star placement.

The dots on the piece are like stars in the box.

Before creating addition tasks, we recall the components of addition. The teacher writes on the board.

ADDEND + ADDEND = SUM

$$4 + 2 = 6$$

The teacher asks what other ways there are to get the sum of 6.

Pupils name different possibilities. The teacher asks the pupils to take the cut-out domino pieces, create addition operations and write them down on the worksheets from the file "How to create your elements".

Step 4: Star catching game

By the end of the lesson, the star-catching game is played. On the table, there are domino pieces and stars. The stars are placed on the table with the number side facing down. A pupil selects a star and creates as many addition operations as they can using the domino pieces, with the sum matching the number on the star. One point is awarded for each correctly assembled operation. Then, the next pupil selects a star, and the game continues until all the stars have been taken from the table.



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SEQUENCE 2

Age group	6-9 y.o
Prior knowledge	The pupil knows the names of the components of the addition operation: addend, addend, sum.
Materials needed	The addition box
Subjects	Addition up to 20. Addend, addend, sum
Skills involved	Pupil can add
Time to carry out the sequence	1 h

Step 1: Listening to a story

Stories have the power to create the right atmosphere. The teacher reads the story “A Stellar Birthday” to the pupils.

Step 2: Examining the contents of the box

Pupils get acquainted with the contents of the box and cut out domino pieces and 12 stars. Each star has a number from 1 to 12 written in the centre.

Step 3: Creating Addition Tasks with Domino Tiles

The teacher recalls the question at the end of the story on how to make boxes filled with stars if you had, for example, nine, ten, or twelve stars. We use domino pieces to learn star placement. The dots on the piece are like the stars in the box. Before creating addition tasks, we review the components of addition.



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The teacher writes on the board.

ADDEND + ADDEND = SUM

$$4 + 2 = 6$$

The teacher asks what other ways are there to get the sum of 6. The students mention different possibilities.

Next, the creation of addition tasks will take place:

- The teacher places stars with numbers facing down on the table near the board. Next, the teacher asks all the pupils to pick up a domino tile from the table and lift it. This is the addend.
- The teacher then says the name of the pupil who takes their domino button, i.e. the addend, and comes to the blackboard – they will be the "first addend".
- The pupil chooses a star with a number - "sum" - from the table on the blackboard, shows it and finds a partner; they will be the "second addend".
- The pairs write the obtained addition on the board, and the "first addend" returns to their place. The remaining "addend" on the board chooses a star with the sum from the table, and the game continues until all the stars on the table are used up.

Step 4: Make Addition Puzzles based on the story

Children write an addition task for each „ray“ of a star according to the number in the middle of the star.

Step 5: Putting Together the Puzzles

The teacher asks the pupils to form pairs. The pupils assemble the puzzles: they find and put together all 12-star pieces. (Once the children have written down all the operations, they should cut out the rays and ask their partner to reassemble the stars by finding the rays containing the connected solutions.)



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