

kindergarten 48 ° C.D.  
"Mother Claudia Russo"  
Naples

## PROJECT: Christmas in Mathematics

**TITLE:** The advent calendar: "Waiting is a mathematical game"

*It results that the words of mathematics,  
and of every science in general are international,  
namely common to European languages,  
from Italian to English, from Spanish to Russian.*

**Giuseppe Peano**

### INTRODUCTION

Our project within the Comenius arises as a continuation of already tested choices to offer children the opportunity of learning through play.

Through play, the child learns to explore the spaces within which he moves. The recreational activity is for him what the work is for the adult: the most challenging moment. Even a simple "count" allows children to share an important experience for perceiving time and pace, relating them to the experiences of space and distance with great precision.

In kindergarten many children have already had mathematical occasional and unaware experiences, through their games and the observation of the world around them.

Starting from the naive conceptions of children on the number and the shape, following a path of routine, as the wait for Christmas, our project wants to give children opportunities to explore the world of mathematics, beginning to make develop in them a reflection about these concepts.

The proposed activities will attract their attention and go on to develop all the skills that kindergarten aims like purposes.

Games and worksheets proposed mainly regard:

nursery rhymes and counts which are careful to lead children towards the symbolization and the abstraction; quantities; alternations; counting associating the gesture to the word.

**TIMES:** month of December

**SPACES:** classroom, gym, painting workshop

**GAME:** These Christmas trees all look the same, instead they are all different except two.

Which ones are the same?

**Activity:** Color the Christmas trees

**Objective:** To perceive equalities and differences

**GAME:** I color the balls of the Christmas tree

**Activity:** Color the balls, then complete the table according to the indications of the coordinates

**Objective:** To work in double-entry table

**GAME:** As many as

**Activity:** Draw in the empty diagrams as many elements as they are those drawn in the first set and quantify in the corresponding boxes

**Objective:** Ability to establish relations of equality

**GAME:** Of all the stars, only one doesn't have the twin. Which will it be?

**Activity:** Color the stars and circle the one which is single

**Objective:** Ability to extrapolate one of many

**GAME:** Among these characters and animals, 5 have nothing to do with the birth of Jesus, which are they?

**Activity:** Circle the extraneous elements, then color

**Objective:** To be able to place elements within a story

**GAME:** Which path will take each character to get first to the cave of Jesus?

**Activity:** Color the shortest path for each character

**Objective:** The sense of measure. To identify short and long distances

### **GAME OF THE GOOSE**

**Activity:** Throw the dice and go on till the cave

**Objective:** Ability to orientate forward, backward, near, far, right and left

**GAME:** Many colored bags

**Activity:** Follow the indications, fold, cut and paste your colored bag

**Objective:** To recognize simple geometric figures and to create greeting cards

**GAME:** Each time one more gift

**Activity:** Trace the path counting each time one more gift

**Objective:** To order in numerical sequence

**GAME:** Decorate the Christmas tree

**Activity:** Count the objects of the two baskets and then draw them on the tree respecting the quantity

**Objective:** To make quantitative correspondences

**GAME:** Santa Claus is coming

**Activity:** Count the number of packets and children and color a box for each element. Quantify

**Objective:** To symbolize quantities

**GAME:** The shepherd who was selling balloons

**Activity:** Conquer many balloons so that you have less balloons of the shepherd and more of the child

**Objective:** To establish quantitative relations

**GAME:** With my hands I can count

**Activity:** Count the balls of the tree and of the basket and write the number. Count the fingers of one hand and of two hands

**Objective:** To combine quantities and numerical symbols

**GAME:** At the flea market

**Activity:** Buy all the characteristic elements of the Christmas tradition of your country and prepare gift packages for 5 friends.

**Objective:** Ability to subdivide quantities

**GAME:** Craftsmen for a day

**Activity:** We build the abacus

**Objective:** To learn to add and subtract through play

**GAME:** Song of the numbers

**Activity:** Memorize of the text and singing

**Objective:** To beat with the numbers from one to ten the musical time

**GAME:** Animals domino

**Activity:** I play with cards

**Objective:** Ability to decipher numbers and quantities

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