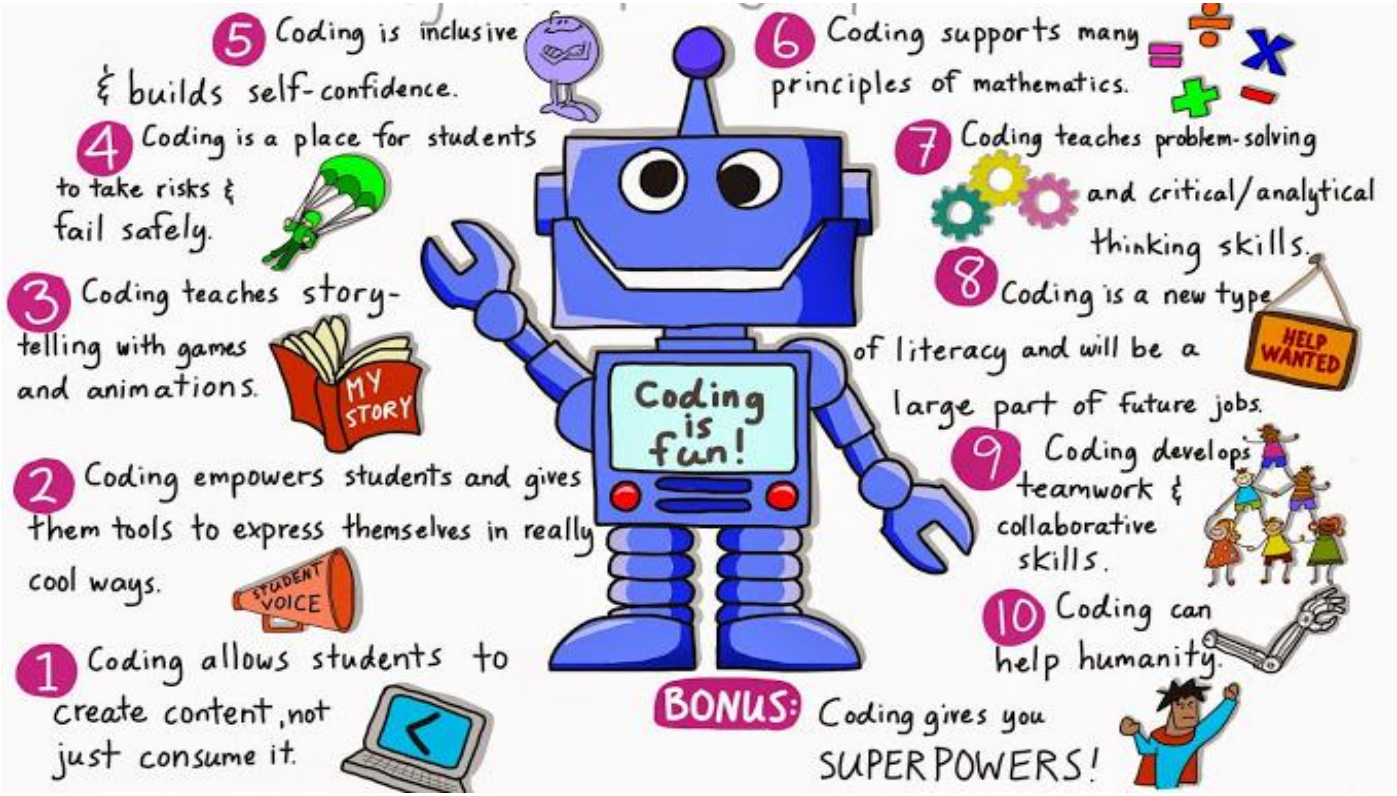
# ISTITUTO COMPRENSIVO FOSSACESIA

- SANTA MARIA IMBARO PRIMARY SCHOOL
- FOSSACESIA PRIMARY SCHOOL
- FOSSACESIA MIDDLE SCHOOL

# Coding at school

The main purpose is teaching the students how to solve problems in a creative way through the use of logic.

# 10 Reasons to Teach Coding



# AIMS:

- Know and use technological devices such as Ipad, pc...
- Improve students' attention and concentration skills
- Learn how to plan an activity in order to reach the purpose
- Understand the task in order to find a good strategy
- Develop creative thinking
- Learn how to plan the working steps

# METHODS:

- Peer education
- Learning by doing
- Cooperative learning
- Workshop

# TOOLS:

- ✓ Technological devices
- ✓ Unplugged activities
- ✓ Free software
- ✓ Stationary equipment

# What's «Scratch»?

Scratch is a software that allows students to create multimidia and interactive games and animations using pictures, music and sounds.

Scratch  is an open source software which can be adapted to any sorts of  needs.

# Primary school: 2° year's activity

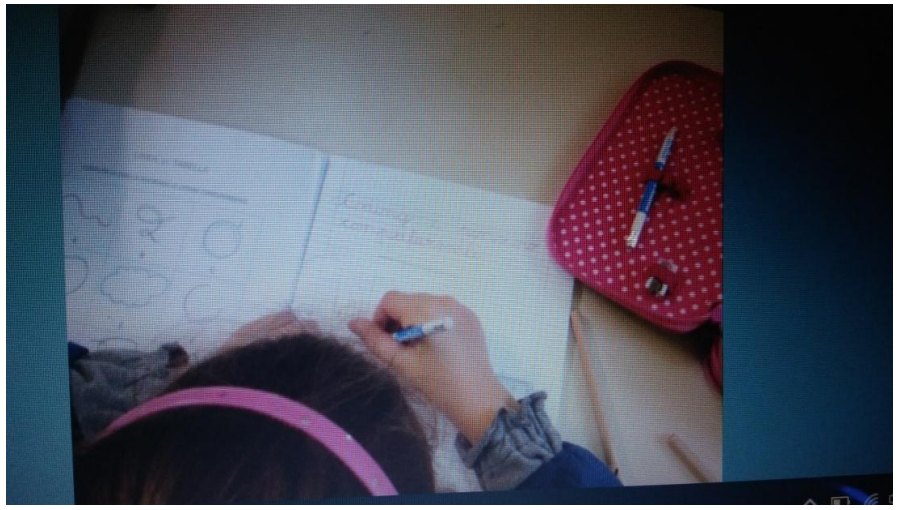
The activity aimed to have the pupils understand the main steps of planning:

- Understand the task
- Find the best strategy in terms of times and results

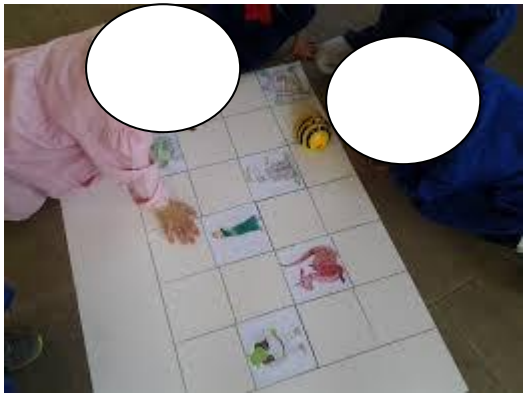
# STEPS:

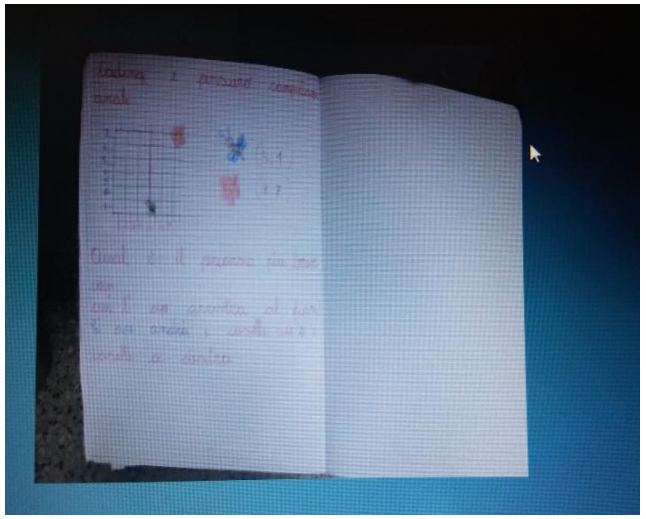
- The pupils have prepared a grid in their excercise books
- They have been given the coordinates about the positions of a bee and a flower inside the grid
- They have used the coordinates to draw both the bee and the flower
- They have been asked to answer the question:

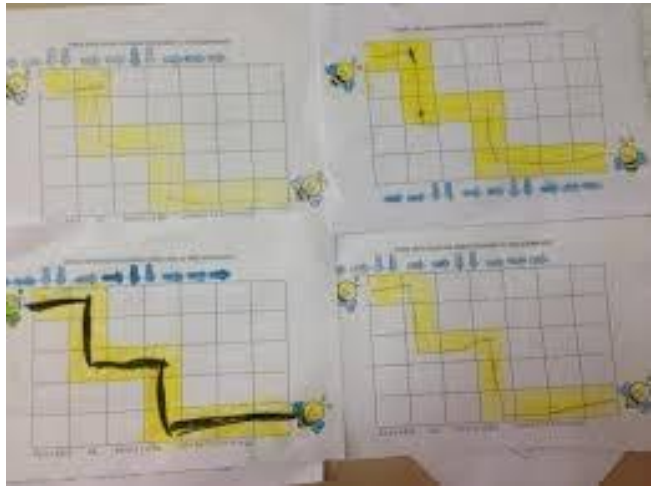
**<u>« what's the shortest way for the bee to reach the flower?»</u>**



- The pupils enjoyed the activity and have reached the purpose.

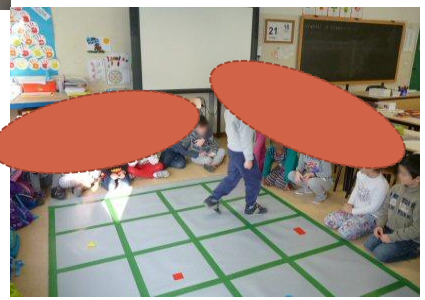






# Primary school: 1 st year's activity

The 1st year pupils start playing "Code and Roby" on a checkerboard carpet



Follow the instructions of the cards to move in the checkerboard carpet

# In our kindergarten

Our pupils are very young so we have used the story of Roby and Cody because we don't need the computers.

Roby is a robot who follows the instructions that Cody gives him

The instructions are 3:

- go ahead
- turn left
- turn right

Each instruction is written or drawn on a card that Cody gives to Roby.

Roby reads the instructions and follows them moving on a chessboard

We don't need a computer but Cody and Roby are our players.

<u>Ready, steady, go...</u>

Now we use coding to reinforce the ability to orient themselves in an area

## AIMS: *Playing with:*

*Geography*
*Italian: learn new geografical words*

*Maths: study geometry*

*Develop their thinking*

*Work in cooperative learning*

*Study coding programme in a different way*

## TOOLS:

- *Puzzle of Italy*
- *Scratch blocks*
- *Directional arrows*
- *Adehesive stripes*

# Let's start.....STEPS:

At the beginning teacher explains what they have to do.

Teacher shows the puzzle of Italy and asks students some questions like: where is the north of Italy? And the south?...

Teacher shows the cardinal points on the map

Teacher gives the regions to the students created by scratch

Students can now start

ITALIA - POLITICA

GENOVA