Erasmus+

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

TITLE: Basic blocks in Scratch

LEARNING SCENARIO		
School:	*Duration (minutes):*	90
Teacher:	*Students age:*	8

Essential Idea:	Scratch blocks are divided into groups or categories of different colors. This makes it easier to find the desired block.

Topics:

- Pupils explore, design and create step-by-step and creative instructions to solve a specific challenge or problem.

Aims:

- Pupils create a series of instructions in which they use repetition.
- Pupils analyze a series of instructions that perform a simple task and if necessary, correct the wrong sequence.

Outcomes:

- With the help of the teacher, pupils can discover, display and analyze the steps of solving a simple task that contains a sequence of steps and repetitions.

Work forms:

- individual work
- work in pairs

Methods:

- presentation
- discussion
- graphic work

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ARTICULATION
Course of action (duration, minutes)

INTRODUCTION

We ask a problem question: how do the blocks in Scratch differ from each other?

We notice groups or categories of blocks that are divided and the color that marks each group / category.

We describe the layout of individual blocks by connecting the blocks like a jigsaw puzzle.

Announcement of the goal of the lesson:

Getting to know the different blocks of commands in Scratch.

MAIN PART

The teacher explains:

Scratch blocks are divided into groups or categories of different colors. This makes it easier to find the desired block.

<u>Motion</u> category contains blue blocks for commands which move the selected sprite.

<u>Looks</u> category contains purple blocks for commands using which the selected sprite will speak, change its appearance and size.

<u>Events</u> category contains yellow blocks. The blocks contain commands that will run the next sequence of commands.

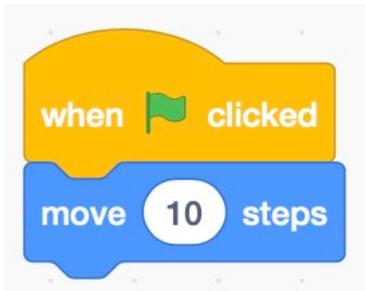<u>Control</u> category contains orange blocks for sprite control commands.

Each block has a unique appearance. Each block clearly indicates the part that connects to the other block. The blocks can be stacked below, above or inside each other, like jigsaw puzzles. We add commands by clicking on them and moving them to the program creation space. Within one program we can connect commands from all categories.

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The teacher explains how to open a new program and how to save a program.

Program execution always starts with the command: **when the flag is clicked** (Event blocks).
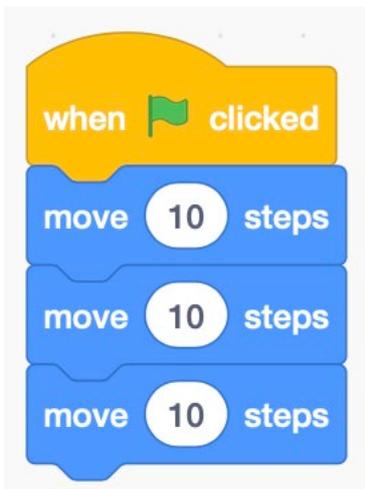
Pupils solve tasks in Scratch and present their solutions.

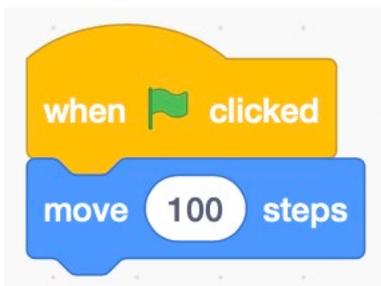Pupils and teachers discuss and evaluate the presented solutions.
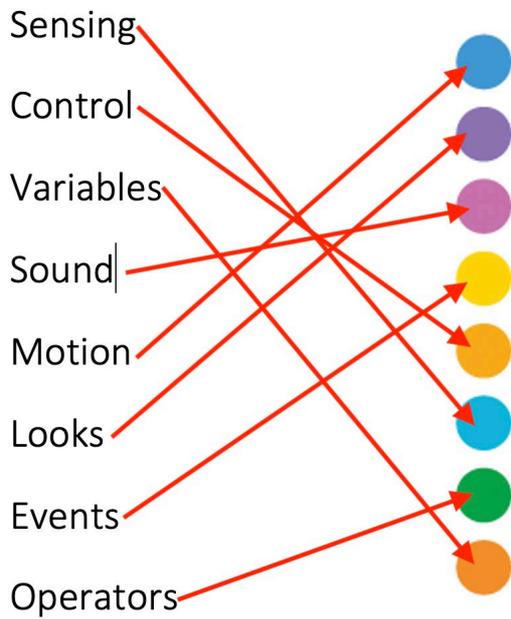
1. The cat moves 10 steps forward.

2. The cat moves 30 steps forward.

3. The cat moves 100 steps forward.

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4. Match the category names with the corresponding colors.

Sensing

Control

Variables

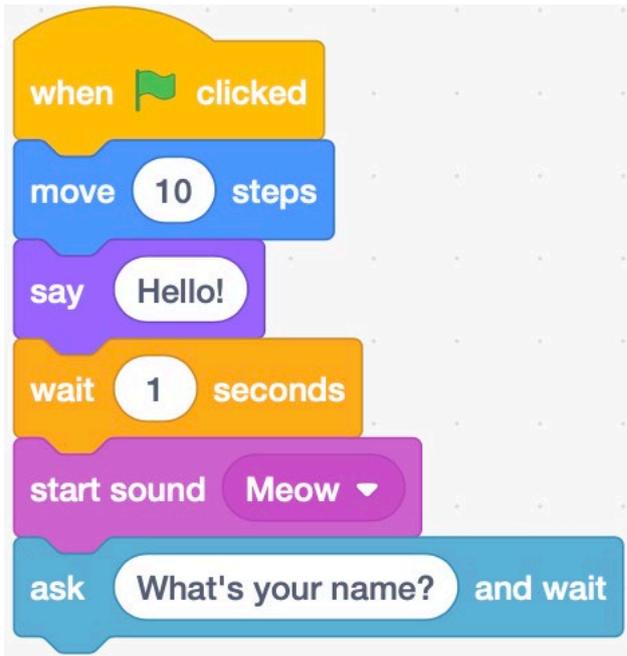Sound

Motion

Looks

Events

Operators

5. The cat moves 10 steps forward.

The cat says "Hello!".

The cat waits 1 second.

The cat plays sound "Meow".

The cat asks "What is your name?".

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6. The cat wants to take 10 steps, change his costume, then take another 10 steps and change the background.
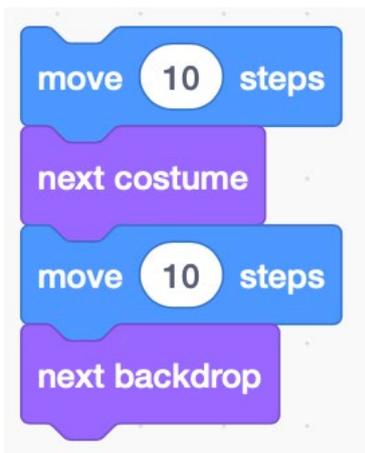
CONCLUSION

To successfully complete the task, it is necessary to set the steps in the correct order.

The teacher checks the pupils' solutions to the tasks.

Together they repeat the strategy they used in solving today's tasks.

Methods		Work forms
presentation	interview	individual work
discussion	demonstration	work in pairs
work on the text	role playing	group work

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graphic work interactive exercise /simulation on the computer	frontal work

Material:

- computer, Scratch/Scratch Online

Literature

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PERSONAL OBSERVATIONS, COMMENTS AND NOTES