







Co-funded by the Erasmus+ Programme of the European Union

Training Programme

Introduction to programing. Creating our virtual world in VR and AR











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MY VIRTUAL WORLD

DAY1

About lectures

Rimantė

- For 5 years Primary and Secondary School IT Teacher
- In 2019 among **TOP 3** of Lithuania's Most Innovative Mathematics and IT Teachers
- 2019-2020 gave lectures for Lithuanian primary teachers on IT integration in lessons
- For 4 years Sourcery for Kids Mentor (Programming academy for 7-12 age kids)
- For 2 years **Organiser** of the children's camp "Informiko akademija" (Programming summer camp for 7-12 age kids)



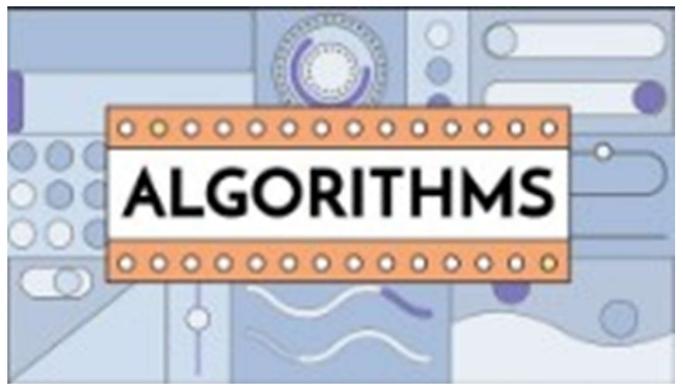
Neringa

- For 8 years Coordinator of educational international projects and Technician in international projects in PI "eMundus"
- For 4 years Researcher and Academic Assistant in Informatics Faculty of Kaunas University of Technology
- For 3 years Sourcery for Kids **Mentor** (Programming academy for 7-12 age kids)
- For 2 years **Organiser** of the children's camp "Informiko akademija" (Programming summer camp for 7-12 age kids)

COURSE STRUCTURE

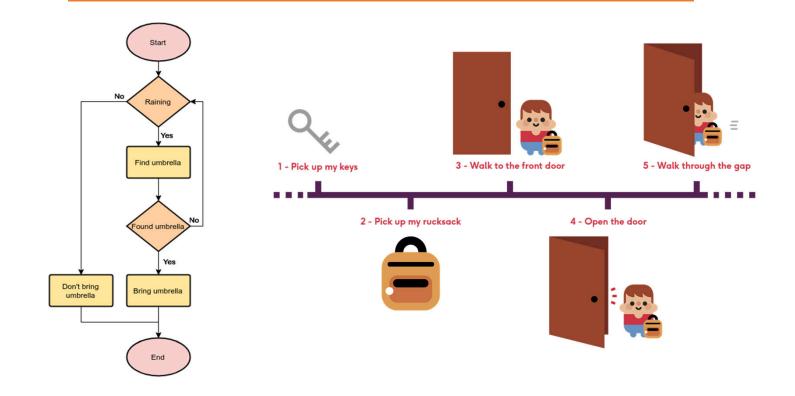
	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
30 min Theory	Basics of programming. How simply explain what is programming and algorithms for kids?	Virtual and augmented reality. History and VR, AR in our life	Equipment and tools for discovering and presenting 3D in the classroom	What is 3D modelling? 2D vs. 3D	CoSpaces Teachers account opportunities, class management
30 min Demonstration according instructions of Practice part	Introduction to CoSpaces Project 1: My virtual world Competencies: navigation in the system, language, programming	Project 2: Tell your story Competencies: creativity, language, writing, programming Subject: native language, English, IT	Project3: Can you count? Competencies: counting, writing, Math, programming Subject: any subject, useful for flipped class method, English, IT	Project 4: My geometric hero Competencies: creativity, counting, modelling, Math, Geometry Subject: any subject, Math, English, IT	Project 5: The Maze Competencies: counting, programming Subject: English, IT
10 min	Assessment (Kahoot)				
10 min	Break				
60 min Developing the projects Consultations	Participants individually developing the project example according the script/instructions and consultations.				
10 min	Feedback (fill the form)				

WHAT IS AN ALGORITHM?

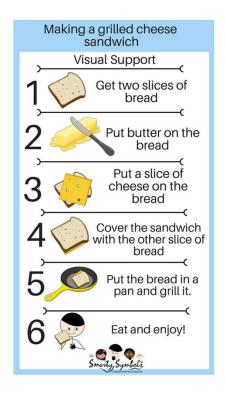


https://www.youtube.com/watch?v=kM9ASKAni_s

EXAMPLE OF ALGORITHMS



EXAMPLE OF ALGORITHMS IN REAL LIFE

















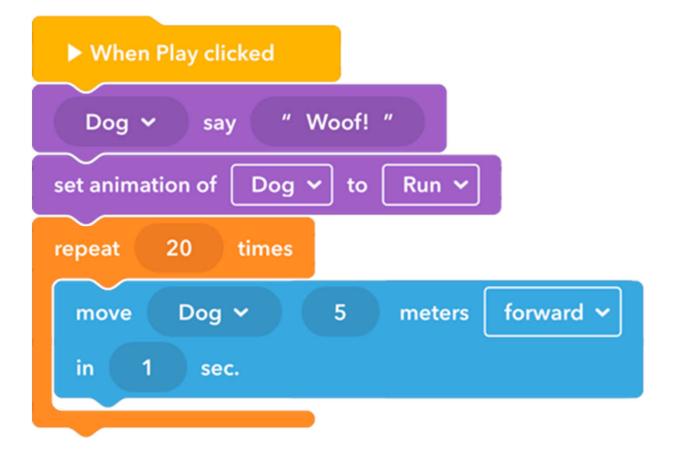
PROGRAMING LANGUAGE



CODE. WHAT PROGRAMERS DO

```
import java.util.*;
    class matrix{
        public static void main (String args[]) {
             Scanner sc = new Scanner (System.in);
             int num[][]=new int[3][3];
             for (int i=0;i<num.length;i++) {
                 for (int j=0;j<num.length;j++) {</pre>
                      num[i][j]=sc.nextInt();
10
             }
11
12
             for (int i=0;i<num.length;i++) {</pre>
                 for (int j=0;j<num.length;j++) {</pre>
13
                     System.out.print (num[i][j]+" ");
14
15
16
                 System.out.println();
17
18
19
```

CODING WITH CHILDREN





- All week training slides, instructions, videos
- Sharing your projects
- Asking questions and discussions (in English or national language)
- Answering the learners (help each other and discover together)
- Asking lecturers by private message (in English or national language)

