Lesson plan		Subject:	ICT
Teacher and students:	Luka Novaković, Karlo Kampić and Ivan Vidaković - 6th grade	Grade:	5th and 6th
		Lesson:	Workshop
School:	Primary School Antun Gustav Matoš Vinkovci, Croatia	Date:	28th May 2019
Topic/Unit:	Programming	Type:	Presentation and practice
Lesson:	Micro:bit - presentation		

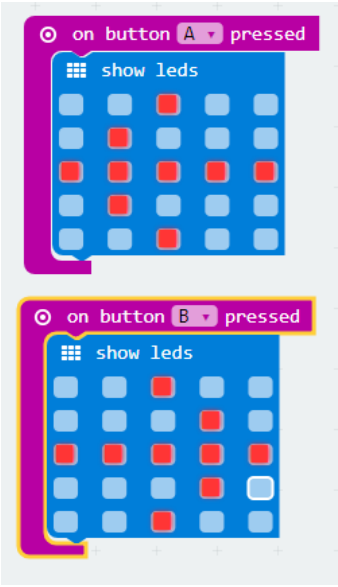
Learning outcomes	Teaching aids:
Students will be able to: • Identify the working environment of the JavaScript Blocks programming language • Connect micro: bit to PC • Identify specific blocks and determine what they are used for • Write the text or draw a thumbnail on the micro: bit LED screen • Expand and modify an existing script	1. Computers 2. Internet 3. Projector 4. Lesson plan 5. Microsoft Power Point 6. micro:bit
Teaching approaches	**Integration with other subjects**
Direct teaching, individualistic, pair/group work, practice	

Methodological recommendations:

It is important to check that each student has the necessary features on the computer and to check the micro: bit of the device.

During the work, allow students to explore the micro: bit device themselves and ask them what they think the device is for.

	Procedure	Methods
(5 min)Introduction	• We start a conversation with our students about programming in a slightly more interesting way. We explain that in Croatia, every 6th grade student gets a device called micro: bit to improve their interest in programming. • We introduce the topic and show micro:bit to students, tell them they will become micro:bit programmers	Conversation Teacher – directed method
(35 min)Main part	**ACTIVITY 1 - micro: bit - introduction (10 minutes)** We give students micro: bits and give them a few minutes to explore and think about different parts of the device and ask them what they think the buttons on the front of the device are for. By the powerpoint presentation, we show an image and describe parts of a micro: bit. We explain how it is connected (via USB port) We will use JavaScriptBlocks editor on the Internet (https://makecode.microbit.org/#) Please note that this is a visual block editor, and creating a program is similar to creating a program in *Scratch*. Note that Micro: bit can only contain one program, and by installing a new program on the device, the old one is permanently deleted. **TASK** : Connect micro: bit to the computer and find JavaScriptBlocks editor (https://makecode.microbit.org/#) **ACTIVITY 2 – Working in JavaScriptBlocks Editor (25 minutes)** After all students have successfully connected the device and found the editor, we explain the editor interface. We show a series of commands divided into categories and colour-coded for easier reference. We show working with scripts (We sort blocks by dragging and dropping the desired commands to the place intended for stacking) Every programme we create must be downloaded to a local computer disk. The name of each downloaded program begins with the word micro:bit. We move the created programme to micro: bit by copying or sending a file with the extension .hex to micro: bit. **TASK:** Make a programme that runs the following commands: When you press the key A, the left arrow appears on the screen and when you press the key B the right one will appear.	Conversation and demonstration Teacher – directed method and individual work

Procedure		Methods
	 **TASK:** Creating a digital board for social games	Practice Individual work
(5 min)Conclusion	Talking to students about this way of programming. All students from partners' schools will be given a micro: bit device they worked with as a gift.	Conversation Teacher – directed method

Teacher's notes