

TOOL - PROGRAMMING INTRODUCTION PLATFORMS

DIGITAL CONTENT CREATION > 3.4 PROGRAMMING

TARGET GROUP	AGE GROUP	PROFICIENCY LEVEL	FORMAT	COPYRIGHT	LANGUAGE
Facilitators	N/A	Level 2	Preparatory guide	Creative Commons (BY-SA)	English, French

This document contains background information for facilitators before they run the workshop with participants. It recaps useful tools available today to learn the basis of programming, directs to the download platform and gives ideas for tutorials and workshop activities.

General Objective Skillset building

Preparation time for facilitator less than 1 hour

Competence area 3 - Digital content creation

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Resource originally created in French

WORKSHOP DIRECTIONS

1 Code Karts

The Code Karts app is available to download free on the [App Store](#), [Google Play](#) and [Amazon](#). It is designed for children. The simple interface involves a car, a track and 'bricks'. Bricks are squares in which the user places directional arrows and the starter key. These must be placed in the correct order (depending on their colours) on a line above the track. Once this is done, the user clicks on the car to start it. If it arrives at the finish line, it means the child has programmed correctly – otherwise they will need to try again!

2 Lightbot

This application can be downloaded free on the [App Store](#) and [Google Play](#), but the platform can also be [accessed directly online](#). It was developed by [Computer Science Education Week](#) and [Code.org](#). Lightbot is a puzzle game designed to introduce kids and adolescents to programming. The objective is to program a little robot or person to navigate a maze and turn on blue lights. The player can program several different actions: turn right, turn left, light up, move, jump. These must be placed in a correct order to have the robot move to light up all blue tiles. Using [this tutorial](#), you will be able to showcase the game for your participants as a way of introducing them to basic programming.

3 Algorithm City

This is a coding game for kids available to download on [Google Play](#) and the [App Store](#). Playing this, kids will acquire some of the basic of coding, such as command sequencing, functions and loops, in order to guide a character to collect gold medals and complete levels. There are many characters (penguin, fox, cow, ladybug, angry bird, rabbit, chicken, etc,) available. Algorithm City contains 50 levels in 4 chapters. The introductory chapter has 5 chapters – it acts as a tutorial for the player. The easy chapter has 15 levels which teaches the basics of programming. The normal chapter has a further 15 levels, which teaches loops. The final 15 chapters come in the hard chapter which goes into detail on functions. The

platform works similarly to Lightbot.

4

Rabbids Coding

Rabbids Coding is a computer game published by Ubisoft. To play, the first step is to create an account on [Ubisoft](#), which will require your email address, password, username, date of birth and that you accept the terms of use. The second step will be to download and install the program **Uplay** to your desktop. This will become available after the creation of your Ubisoft account. When **Uplay** is properly installed, you can run it and connect using your email address and the password you created previously. Finally, click 'my games' and Rabbids Coding will be available. This game is meant for teens and kids over the age of 7. It, like the previous platforms shown, introduces young people to coding in game-based way. The idea is to learn the basics of coding and algorithmic logic without necessarily intimidating kids with complex ideas.

Facilitation tip: if you are planning to organise an afternoon on the theme of programming, we recommend you start with Lightbot which is a little more accessible for beginners. The objective of the game is to steer the rabbit to the washing machine (i.e. the finish line) while avoiding obstacles on the way. To do this, players need to program the rabbit using a series of commands. The advantage is that elements are introduced gradually as the player progresses.

5

Scratch

Scratch is a block-based [visual programming language](#) and website whose main user age group is 8-16 years of age. Users of the site can create online projects using a block-like interface. It is perhaps the most well-known of all platforms used to introduce kids to programming. There is a wealth of tutorial resources [available here](#).