Algorithmics

The Coding Knight

For children aged 6-7

Kids' first dive into
the fascinating world
of algorithms and code

Programming
for young children

They can start coding from a very early age!
Learning to code is a lot like studying a foreign language.
Kids learn languages faster and with less difficulty than
adults, and an approach centered
on play gets them interested.
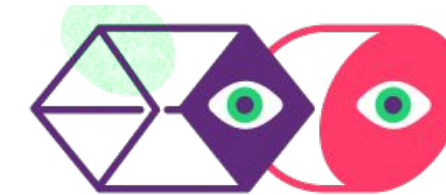
Everyone
will enjoy it!

We shake things up

We use different kinds
of activities: talking among
peers, completing tasks,
being physically active,
and coding

We learn while having fun

Our play-based format and
interesting storyline help
us retain the attention
of students who find
concentrating difficult

We find their motivation

We don't do tests and we don't
present answers at the
chalkboard, instead we apply
what we've learned in practice
straight away, by creating
projects and bringing our own
little dreams to life

Your child will learn:

- to make sense of the basic principles of programming

- to create games and cartoons in Scratch Junior

- approach problem-solving creatively

- talk about their projects in front of the group with confidence

- work in a team on joint tasks and projects

Integrated development

Your child will develop:

- **logical, algorithmic and spatial thinking**
- **creative abilities**
- **communication skills**

They'll learn to reflect, ask questions and not be afraid of making mistakes

They'll be introduced to the learning process and get prepared for school
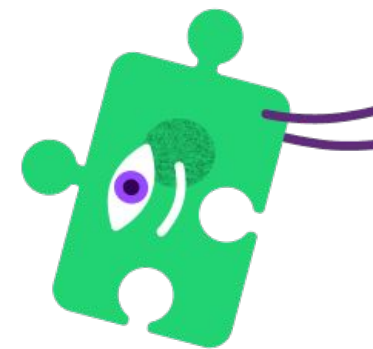
Course structure

Module 1. Linear algorithmics

- Executor, algorithm
- Program and memory block
- Running programs
- Making up programs
- Linear algorithms

Module 2. Cycles

- Loops
- Loop algorithms
- Composing looped algorithms

Module 3. Introduction to Scratch Jr.: appearance commands, movements, loops

- Introduction to the Scratch Jr environment
- Scratch Jr. Events ("When the sprite is pressed down") and commands in the "Movement" section
- Commands of the "Appearance" section
- Loops. Review. Interactive project

Module 4. Events Animation

- Events Programming of parallel (simultaneous) actions when running a project
- Programming automatic changes in the scenes when running the project
- Creating animation (beginning). The appearance of characters at the start. Recording and using sounds in Scratch
- Creating animation (finalizing), demonstration of projects, reviewing the module topics

Module 5. Messages

- Messages
- Using messages in the game.
- Programming buttons using messages.
- Programming buttons to control the character

Module 6. Conditional operator. Touching

- Touching conditions
- Sending a message when touching
- Creating a game with animation. Start
- Creating a game with animation. Finalizing

Module 7. Implementation of game mechanics in a project selected by the group*

- Selection and start of implementing a large group project
- Continuing the implementation of the group's large project
- Continuing the implementation of the group's project
- Projects presentation

Module 8. Implementation of game mechanics in a project selected by the group*

- Selection and start working on the final individual project on the course
- Creating their own individual project according to the students' choice
- Creating their own individual project according to the students' choice
- Presentation of final projects. Awarding

*Only in the full version of the course

What is Scratch Jr?

Scratch Junior is a simplified visual programming language created specially for teaching kids aged 5-7:

Programming in practice

In Scratch, programs are assembled using blocks, just like Lego: the child starts learning through play rather than memorizing complicated syntax

A fast start

Thanks to Scratch, children can progress quickly from generating ideas to launching their first program, without losing their interest and motivation
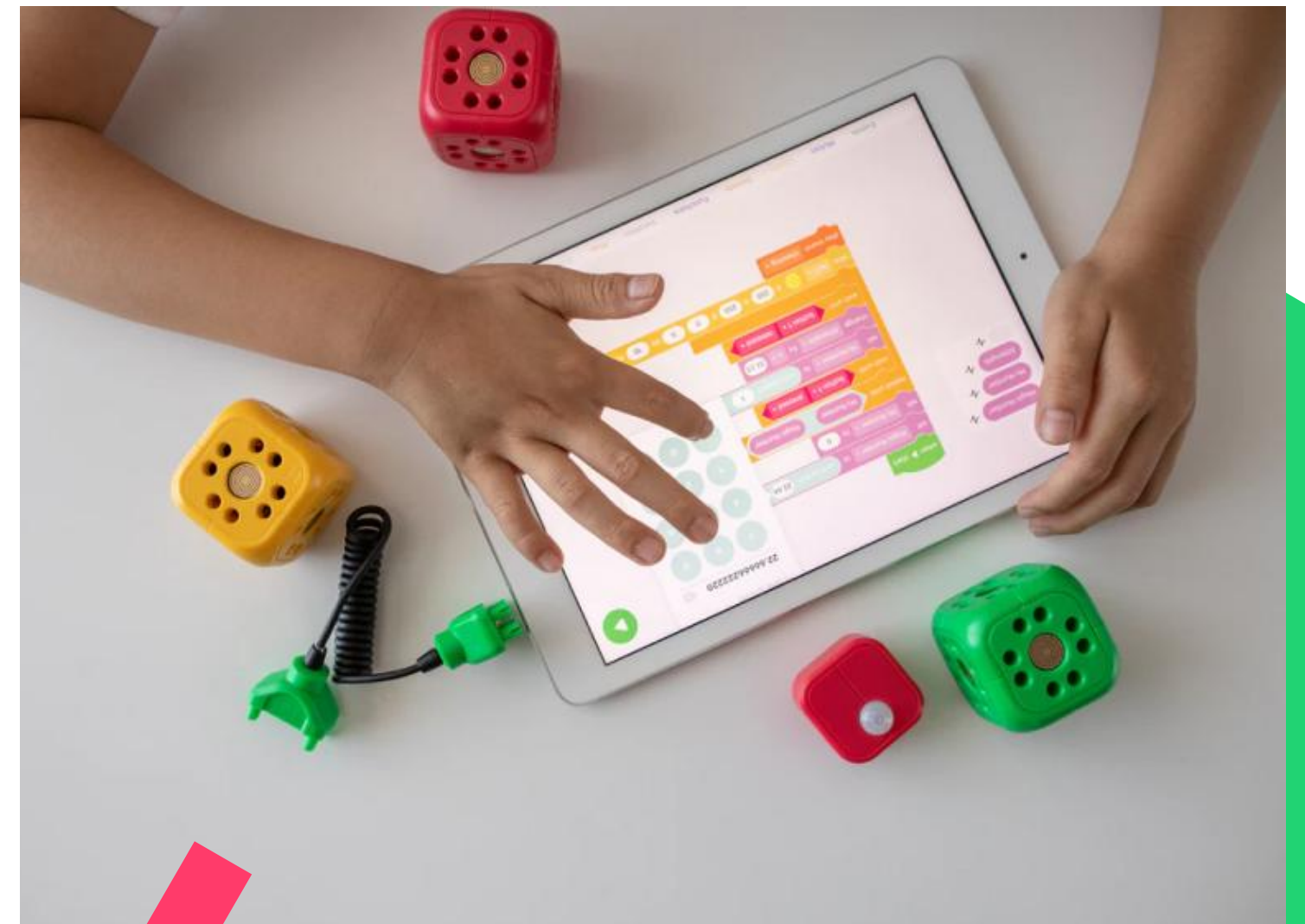
The Coding Knight

"The Coding Knight" is an app developed by Algorithmics with its own storyline and game mechanics. We use it to introduce children to the world of programming:

- Kids learn to assemble their first commands and control their character

- They solve algorithm-based tasks disguised as a tablet game

- They study the game's dynamics so that they can then create their own games
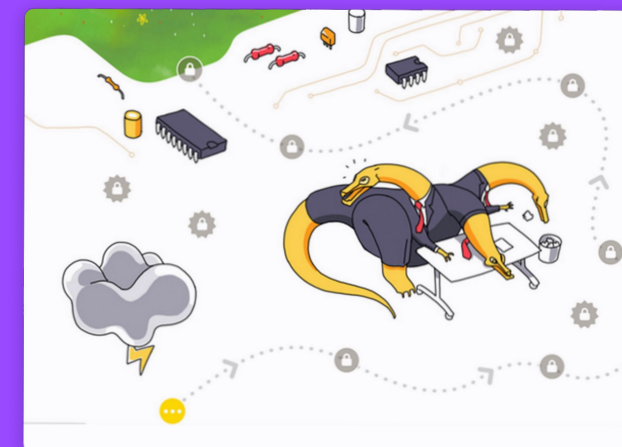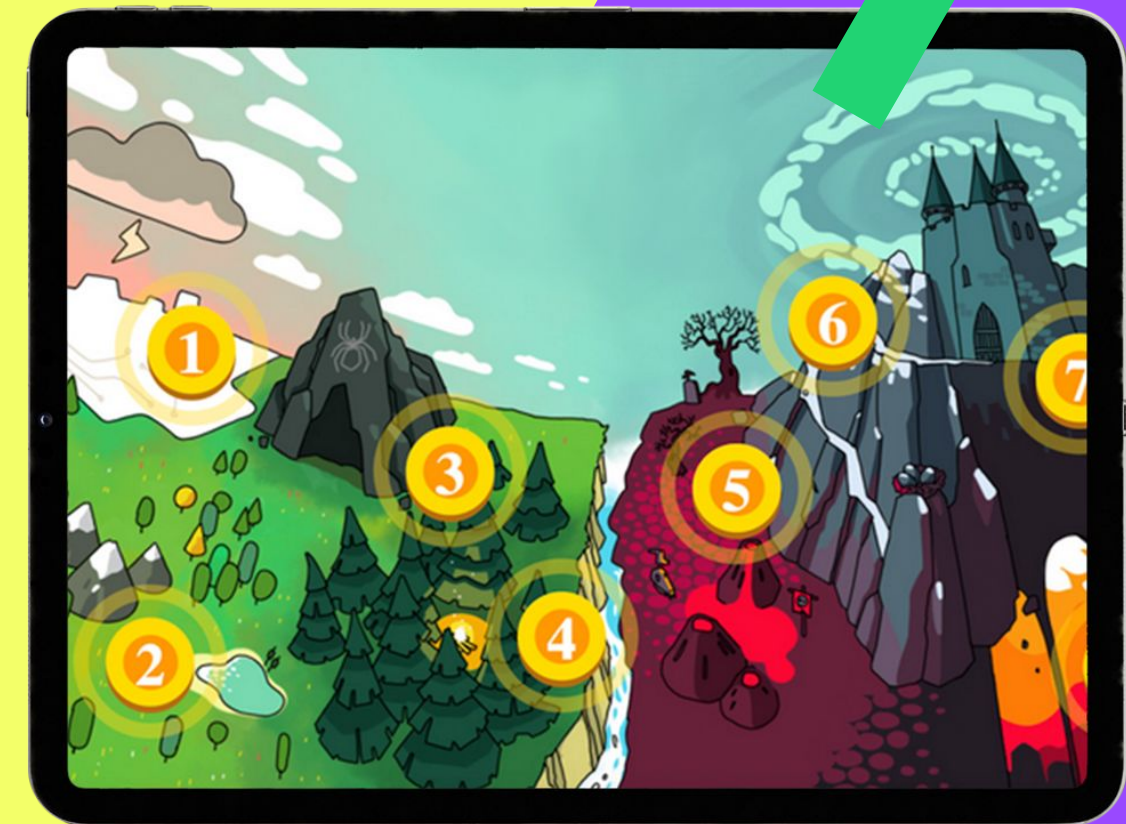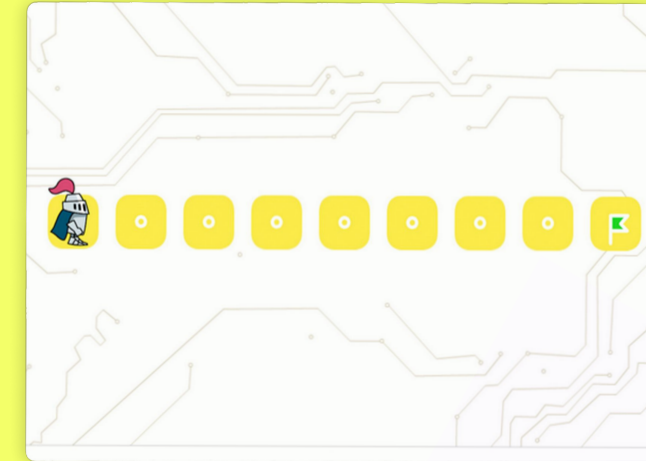
A project-based approach

◆ Our kids create mini-projects right from the course's third module, applying the knowledge they've gained in practice

◆ They share their projects with their classmates directly in the platform, and learn to give and receive feedback

◆ At the end of each module, they present a full individual or group project
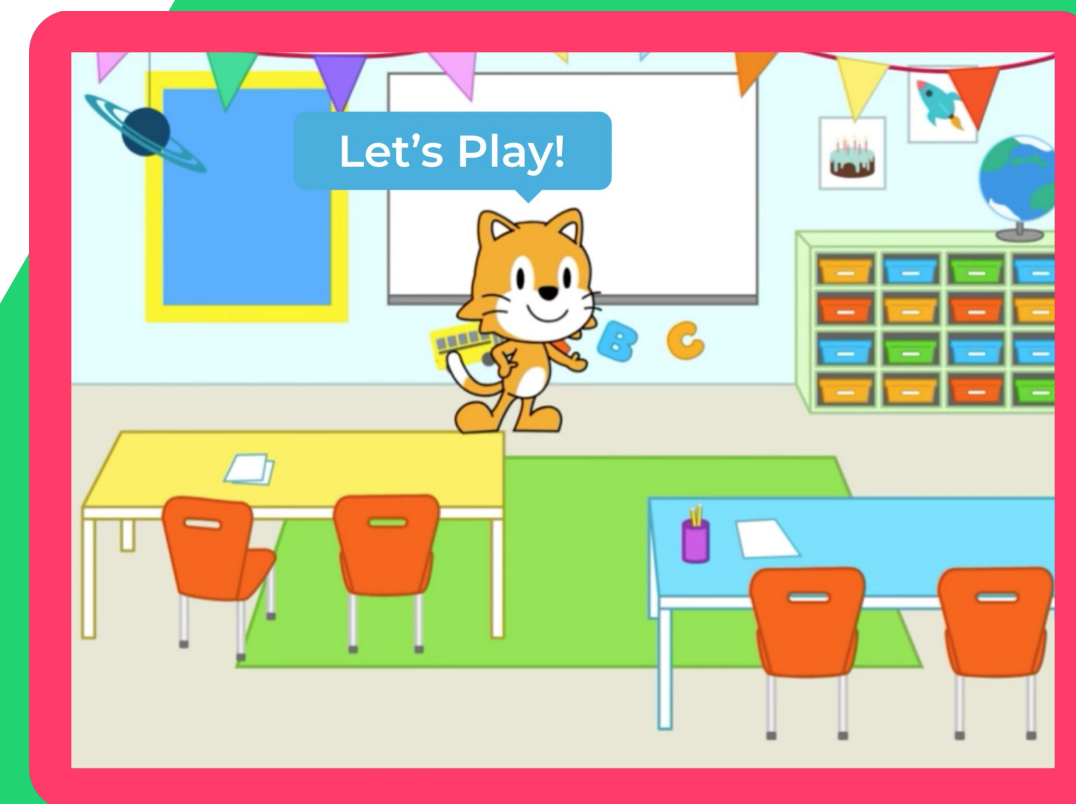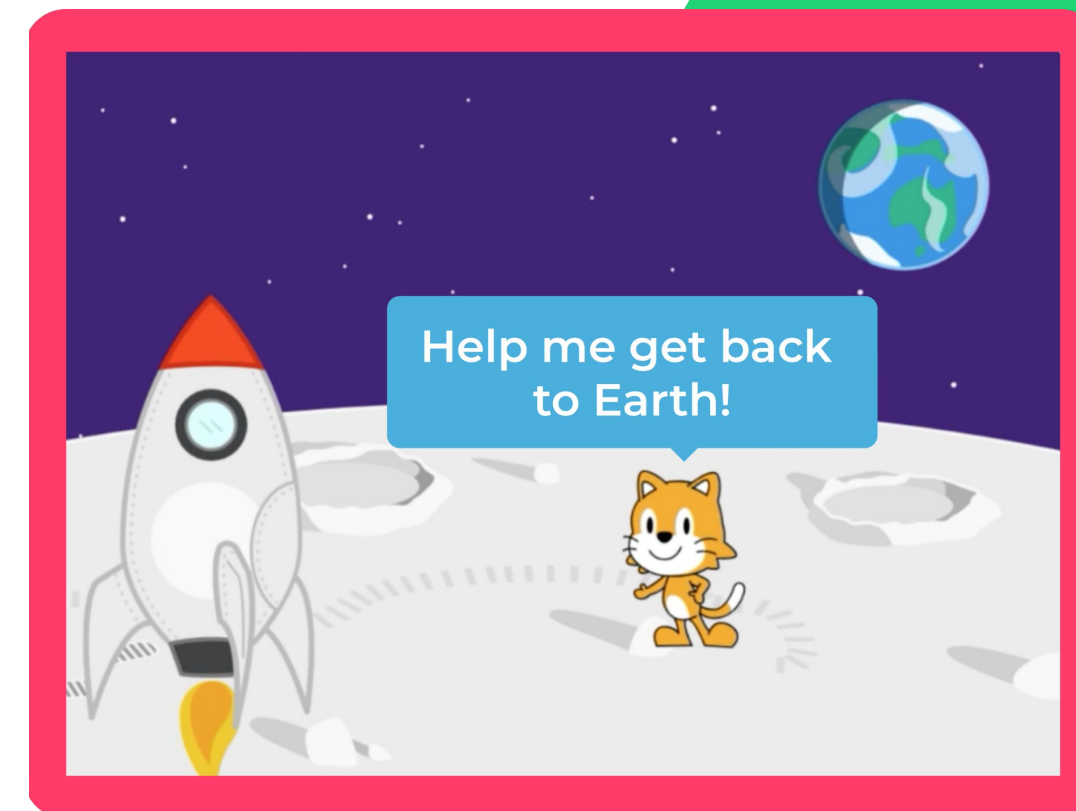
What our classes are like

- The teacher explains the material in an interesting way and **gets the kids interested in the new topic**

- Your kid won't ever fall behind in the program: **any classes they miss can be taken on the platform,** 24/7

- You won't need to check any homework: at Algorithmics, **there are no obligatory homework tasks**

- You'll be given **access to the platform** and will be able to follow your kid's progress

Offline
at the Algorithmics school in your city

up to 10 kids
in groups with the teacher

45 minutes
with a warm-up

1-2 times a week
at a time and on a day that's convenient for you

How much does it cost?

starting at ___ per class

4 classes

Offline

_____
_____ per class

16 classes

-10%

Offline

_____   _____
_____ per class

32 classes

-15%

Offline

_____   _____
_____ per class

Why do people choose Algorithmics?

- The curriculums for all our courses are developed by a team of professional **educators, pedagogues and psychologists**

- Algorithmics' **teachers** talk to the kids in understandable language, love their subject and know how to captivate children

- Our **IT learning platform** is 3 in 1: it's a smart task book, an environment for creating projects, and a community of shared interests

Algorithmics

International School of Programming
for children aged 6 to 18

- 1 100 000 graduates
- 90+ countries
- 515 partners

Courses for kids aged 6 to 18

Kids can start studying at Algorithmics at any age. At the end of the course, students can move straight on to the next one to continue studying in the new academic year

Course name:	Age:	6 — 7	8 — 9	10 — 11	12 — 13	14 — 15	16 — 18
Front-end Development							██
Python Pro (2 years)						██	
Python Start (2 years)					██		
Game Development on Unity					██████		
Building Websites				██			
Game Design				██			
Graphic Design			██████				
Video Content Makers			████				
Visual Programming			██				
Summer Sessions		██████					
Digital Literacy		████					
The Coding Knight		██					

Algorithmics

Book a place in one of our groups

Please wait for our manager
to call you and help you select
a class start date that
works for you

[link to the website]