PLAYNEWMETA ACADEMY

Junior Game Development and Esports Training Camp

Teaching Computer Science is a constant challenge for educators. Teaching methods evolve, and the subject changes faster than we can type "Hello World."

At the Play New Meta Academy, we firmly believe in balancing mastering code-building foundations and exploring new tools and techniques - all while having fun! It's essential to keep pace with advancements in this rapidly evolving landscape. Standing still means falling behind!

Igniting Passion and Curiosity

Throughout the course, we dive into the world of game development, **gradually increasing the complexity and range of techniques used as we go.**

Our students will also learn how to use simple **graphic design tools,** unleashing creativity to generate graphical elements for games with **AI assistance.**

To round off each day, a **gaming session** awaits the students. Guided by our coaches, these sessions will focus on moving students from developers to gamers as they connect how the theory of the day is implemented into live gameplay while also focusing on **improving teamwork, leadership, communications, critical thinking, and much more!**

After a week in our camp,
your child's understanding will grow.
Instead of just seeing adverts, they will see carefully curated graphical elements; instead of just playing games, they will also understand the coding techniques and elements that were used.

Course Schedule

	Session 1: Graphic Design 09:30 - 11:15	**Session 2: Coding** 11:30 - 13:00	**Session 3: Gaming** 13:30 - 15:00
Day One	**Character Design** Working in raster graphics editor, learning basic selection and modification tools.	**Creating first game** Using events, conditions, loops. Acquiring fundamental knowledge about scenes, sprites and algorithms.	**Introduction to Minecraft** **Part 1:** Guess the Sprite **Part 2:** Minecraft free play to prepare to fight the Ender Dragon.
Day Two	**Work with References** Image sourcing online, graphic editing, background removal.	**Single-player game featuring character control mechanics** Navigating geometry: angles and coordinates exploration. Randomness and using of random events.	**Mini-Competition** House Building Competition
Day Three	**Art Styles with AI (Pt.1)** Using AI to generate environment.	**Scorekeeping** Variables for score tracking, timer creation and managing life counts.	**Teamwork** **Part 1:** Mining Simulator **Part 2:** Team-based Ender Dragon battle
Day Four	**Art Styles with AI (Pt.2)** Using AI to generate turnaround of character.	**Development of a two-player game** Exploring power of clones in Scratch.	**Advanced Minecraft 1** **Part 1:** Agent Mechanics **Part 2:** How to use the Builder
Day Five	**Magic of Creativity (Pt.1)** Development of a personal project, using all acquired knowledge	**Magic of Creativity (Pt.2)** Development of a personal project continued	**Advanced Minecraft 2** **Part 1:** Learning how Redstone alters the Minecraft world and what it can do **Part 2:** Learning what add-ons can do and how

Learning Outcomes

(All lessons are taught at a Key Stage 2 level.)

- **To learn about the principles of User Interface design.**
- **To learn how AI can assist game development, utilising prompts to bring ideas to life.**
- **To develop core programming skills on the world's most widely used educational coding platform, Scratch.**
- **To see gaming as an opportunity to foster cognitive skills, social abilities, and collaborative teamwork.**

Essential Graphic Tools

In mainstream information technology classes, students often lack the tools and knowledge to add the characters they are excited about and resonate with.

We've included a core set of tools in this learning block to solve this problem.

Character Design and Work with References

Working in a Raster graphics editor, learning basic selection and modification tools, learning online image sourcing, and working towards a foundation in graphics editing.

Art Styles with AI

Diving into the diversity of graphic styles through examples from games, movies, and cartoons. Learning how to create characters and generate environments for them. Learning **how to write Midjourney prompts** and what keywords to use to produce the best results that meet our needs.

Generate: fluffy octopus:: baby pink color::3 --aspect 3:2 --version 6 --quality 1 --stylize 500 --chaos 10 --stop 100 --repeat 5 --weird 1000

Advanced coding in Scratch

Scratch is the world's most popular educational programming platform, specifically designed for learning the fundamentals of coding. Its excellent balance in simplifying complex concepts allows the creation of engaging games while exploring fundamental algorithmic structures. **Variables, conditional statements, loops, procedures, and functions are all explored,** helping to provide a strong foundation for future learning in computer science and game development.

This course is designed to span a wide range of experience levels and is **suitable for both beginner and advanced coding students.** Even if your child has already experimented with Scratch at school, our course will help to expand their horizons and explore new opportunities within the software.

"When I started preparing children for truly serious programming competitions, teaching game development lost its appeal to me. However, when my students won competitions, they rarely recalled the complex algorithms I taught them. In most cases, they expressed gratitude and remembered the very first moment I showed the beauty of programming to them. Since then, I realised that I've helped create courses for these young learners, while also laying the foundation to teach them much more complex things in future."

- Maryna Hladkykh

Gaming: Play to Win

What could be better than creating games?
Playing games under the guidance of
our experienced coaches!

In our camp, your child will:

- **Develop strategic thinking and planning skills.**
- **Improve social skills through interaction with other players.**
- **Enhance reflexes and coordination.**
- **Learn time management and prioritization.**
- **Promote analytical skills and problem-solving abilities.**

All through the medium of video games!

Meet the Author of the course

"Any sufficiently advanced technology is indistinguishable from magic"
Arthur C. Clarke

Maryna Hladkykh

Educational Qualifications
Maryna holds a Bachelor's degree in Computer Science with a specialization in AI, complemented by a Master's in Secondary Education focusing on Informatics and Mathematics.

Maryna is a highly qualified computer science teacher from Ukraine and the founder of "//magic" school, an offline programming course in Kharkiv, Ukraine, where over 150 children were enrolled before the ongoing conflict.

With 10+ years specialising in teaching competitive programming, Maryna has sculpted champions for national and international individual and team Olympiads, including prestigious events like IOI and ICPC. She is the creative mind behind courses covering algorithms, data structures, and 3D modeling. As a teacher, she assisted 20+ graduates in obtaining summer internships at major tech companies, such as Google.

Beyond the classroom, Maryna co-founded and lent expertise to "Erudito," an educational startup that garnered recognition and grants from the National Fund of Ukraine.

Course Outcomes

After the course, our students will create a comprehensive project from start to finish

including:

- Conception of ideas
- Character design
- Storyline development
- Level creation
- Implementation of gameplay mechanics

All by themselves!

At the conclusion, your child will receive an **official New Meta Academy diploma and course transcript** outlining the skills they learned during the week.

Rest assured, even if your child has only participated for a few days and has not completed the entire course, they will be awarded an **'Introduction to Game Development'** diploma. This will be supported by a detailed report of the hours they have successfully completed during their involvement.

The skills and knowledge acquired during this course will be invaluable for future game development and computer science pursuits and beyond, establishing a well-rounded understanding of the building blocks that create today's digital world.

Location / Contact

We are based at Play New Meta, a gaming arena and cafe in Angel Islington.

Islington Square, 116H Upper St, South Arcade, London N1 1QP

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academy.playnewmeta.gg/summer_camps

Contact
academy@playnewmeta.gg