Gomma Learning

COURSE 05

AI Game Design Workshop

Brick-Breaker Edition

Children design their own brick-breaker game — the paddle, the ball, the bricks, the power-ups and the level layouts — then direct AI tools to build a playable version they can share with family and friends.

Ages 9+ | 8–10 sessions | Groups of about 10 | No coding experience needed



COURSE BOOKLET

HONG KONG

WHAT STUDENTS BUILD

The brick-breaker game students build

By the final session, each student has a working brick-breaker game of their own, with brick walls, power-ups, special attacks and level layouts they designed themselves.



Power-ups. Smash a crate to release a power-up: multi-ball, a wider paddle, a super ball or an extra life.



Special attack. Every brick broken charges the power meter. When it's full, fire a mega blast that clears a whole column.



Bonus stage. Flying creatures sweep spotlights across the screen. Bounce the ball to knock them out before they fire back.

4	6	10+	3
brick types, from easy to unbreakable	power-ups	level layouts to design	lives per game

> These images illustrate the kind of game students design. Every student's game is their own, so styles and details will differ.

WHAT WE TEACH

Six areas of a brick-breaker game

Students learn to design and build a complete brick-breaker game. Using the same specification methods as professional game studios, they move from paper concepts to a playable digital prototype — directing the AI tools themselves, under tutor supervision.

1

Theme & Characters

A world, a paddle character and a ball, plus a reason to smash through the wall.

2

Controls & Paddle

Move the paddle with body movements through a camera, or with a mouse or touch screen, and decide how the bounce angle changes.

3

Ball Physics

Bouncing off walls, the ceiling, bricks and the paddle, ball speed, and what happens when the ball is missed.

4

Bricks & Level Layouts

Bricks that need one, two or three hits, unbreakable bricks, scores for each colour and patterns that grow harder level by level.

5

Power-ups & Special Attacks

Multi-ball, a wider paddle, a super ball and extra lives, plus a power meter that charges a special blast.

6

Bonus Stage, Scoring & Playtesting

A bonus stage with moving targets, star ratings and lives, and a disciplined loop: test, observe, change one variable.

Skills children develop

- Logical thinking
- Clear written instructions
- Project planning
- Level design & pacing
- Game balancing
- Testing & problem-solving
- Presenting to an audience

ROADMAP

From paper idea to playable game

The course runs over 8–10 sessions. Each stage ends with a concrete deliverable, so progress is visible from week to week.

SESSIONS 1–2

Imagine & paper design

Theme, paddle character, brick types, power-ups and first level layouts, sketched on grid paper.

Deliverable · Draft Game Design Document (GDD) on paper

SESSIONS 3–4

Characters, bricks & HUD

Students write prompts for AI to create the paddle, ball, bricks, power-up capsules and backgrounds, then design the score, lives and power meter.

Deliverable · Asset pack, plus HUD layout sheet

SESSIONS 5–6

Bouncing & breaking

Paddle controls, ball physics, breaking bricks and scoring are built and tuned until every bounce feels right.

Deliverable · Playable first level

SESSIONS 7–8

Power-ups, levels & bonus stage

Power-ups, the special attack, more level layouts, the bonus stage, star ratings and sound.

Deliverable · Feature-complete brick-breaker game

SESSIONS 9–10

Playtest, improve & showcase

Peer playtesting, one-change-at-a-time improvements and final polish, ending with a showcase for parents.

Deliverable · Shareable game, printed GDD & presentation

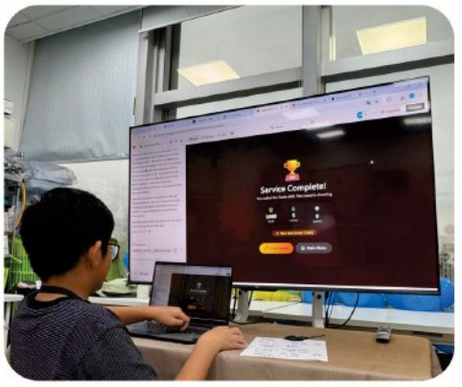
> On an 8-session course the stages are condensed. Holiday workshops follow the same stages over 5 days.

COURSE DETAILS

Course details at a glance

Who is it for?

- Children aged 9 and above who enjoy games or love telling stories
- No coding, art or design experience is needed
- Children who already code are very welcome too



Course information

Age	9+
Sessions	8–10
Format	Term time: one 60-minute session a week School holidays: 5 days, 3 hours a day
Group size	About 10 children per group
Language	Cantonese, with English support
Locations	Sha Tin, Tsim Sha Tsui, Tsuen Wan, Causeway Bay, Yuen Long, Tseung Kwan O and Kai Tak — or at your organisation's venue
AI tools	Chosen to suit each class. All AI accounts are set up and managed by tutors, and students use them under supervision.
Dates & fees	Available on enquiry

What every student takes home

- A playable brick-breaker game on a shareable link
- A personal, printed Game Design Document
- Original artwork and characters, made with AI from their own ideas
- The experience of presenting their work to an audience

FOR SCHOOLS & ORGANISATIONS

Bring the course to your school

We run this course for schools, churches, non-profit organisations and community groups — as a regular course, a holiday workshop or an after-school activity, adapted to your schedule and learning goals.

We provide

- ✓ Course design and teaching materials
- ✓ Tutors and teaching assistants
- ✓ AI account set-up and management
- ✓ Full supervision of AI use
- ✓ A learning record for the host organisation

The host provides

- ✓ A room with a projector or large display
- ✓ Reliable Wi-Fi
- ✓ Computers for participants (or equipment supplied by arrangement)

How it works

01
Enquire
Tell us the age or year group, numbers, schedule and goals.

02
Proposal
We send a course plan, equipment arrangements and a quotation.

03
Delivery
Our tutors and assistants teach on site and supervise throughout.

04
Showcase
Students present their games; you receive a learning record.

FAQ

Won't the AI just do the work for them?

No. AI can generate images and code, but the ideas, design and judgement belong to the children. They explain what they want, check whether the result meets their goal, then test and improve it.

How do we enrol?

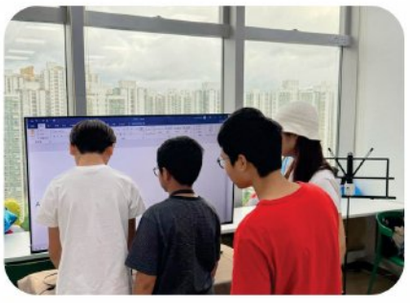
WhatsApp us with your child's age, the course and your preferred times. We will reply with dates, fees and enrolment steps. An enquiry does not reserve a place.



Small groups, with tutors guiding every step



Students describe exactly what they want the AI to make



Classmates playtest each other's games

OUR STORY

It began around the kitchen table

It began in the quiet hours after our children had gone to sleep. A small group of us — parents who also work as game designers, programmers and artists — would gather around kitchen tables across Hong Kong.

For many years our professional work has centred on educational games: digital environments that encourage children to explore, experiment and grow through play.

At home, however, we saw our own children return from school with tired eyes. In a city where simply keeping pace can be exhausting, we watched how easily a child's spark could fade. Around those tables the same questions kept returning: what does genuine happiness look like for a child? And how can meaningful growth take place when the atmosphere itself feels heavy with expectation?

We found our answer in the games we had spent years designing. In a well-made game, an error is not a failure; it is information — a signal to pause, rethink and try a different approach. Growth lies in the process itself.

So we founded Comma Learning: to give children permission to explore, to stumble, to pause and to keep moving forward, free from the pressure of a flawless finish. The company rests on a love of our craft and a shared hope — that children will grow up knowing that meaning is found in the journey.

An error is not a failure. It is information. — The Comma Learning founding team

OUR BELIEF

A comma leaves room for the next idea.

A comma keeps a sentence going and leaves room for an idea to grow. Through creative AI projects, children practise developing ideas, explaining them clearly, checking the results and improving their work.

01 Children think; AI helps create

Children decide the story, rules and characters, and judge the results. AI is a tool — never a substitute for thinking.

02 Learning through projects

Every course builds towards a finished piece of work, with a clear record of ideas, tests and improvements that parents can follow.

03 Progress, not just completion

Getting it wrong is part of the lesson: understand why, change one thing and try again.

Mistakes are part of learning

A ball that flies straight through a brick? A level that is impossible to clear? Every error is a chance to improve: find the cause, adjust one setting and test again.

Try it → Read the result → Change one thing → Try again

Comma Learning

CONTACT

Ready for the next idea?

Tell us your child's age, interests and preferred schedule, and we will reply with the next available dates and fees. Schools, churches and organisations are welcome to ask about group programmes.

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