

For 4-13 years old 适合 4 至 13 岁学生



Project X

ECA Program

HONG KONG'S FIRST 全港第一

STEAM X Public Speaking Accelerated Programme

STEAM X 公开演讲课程

Build Tomorrow's Leaders

装备关键能力，培育未来领袖

Structured Curriculum in STEAM, AI & Public Speaking

STEAM、人工智能与公开演讲的系统化课程设计

THINK like a SCIENTIST

BUILD like an ENGINEER

PITCH like a CEO

Level 1

Level 1-5

课程级别 1-5

Level 5



Scan the code to watch curriculum philosophy & logic
扫码观看课程设置理念与逻辑



Awards
获国际奖项认可



Media Coverage
媒体报道



4 Future-Ready Modules | 5 Progressive Levels

四大领域 | 五级进阶课程设计

Coming soon
即將推出，敬請期待！

ProjectX

Science & Engineering

Tech, Coding & Robotics

AI & Entrepreneurship

Public Speaking & Presentation

Level 5
(Age
11-13)

 **Science Innovations** 
Research-ready innovator — combines science + engineering to create a refined, high-performing prototype and show real-world impact.

 **Python Product Builder** 
Product builder — creates a market-ready prototype with Python + SBC, validates it, and pitches its real value.

 **AI Product Launch**
Alibaba Cloud Certified
Tech CEO in training — Launch a real AI product in Python, present like a tech CEO, and earn an Alibaba Cloud certificate.

 **Tech CEO Product Keynote**
Stage-ready launcher (3 minutes) — delivers a launch-style pitch with results, limits, and sharp Q&A.

Level 4
(Age
9-11)

 **Science Engineering** 
Problem solver — applies science ideas to design and build a working solution to a real-world problem.

 **Micro:bit Inventor**
Real-world inventor — turns ideas into working sensor-based solutions, then tests, fixes, and demos them confidently.

 **AI Builder + Brand Owner** 
Product & brand builder — Build more advanced GenAI products and learn branding, marketing, and how to run a sustainable business.

 **Tech Business Pitch**
Pitch-ready presenter (3 minutes) — tells a problem-solution-value story with a live demo.

Level 3
(Age
7-9)

 **Science Research**
Evidence thinker — collects results, spots patterns, and backs ideas with data & analytics.

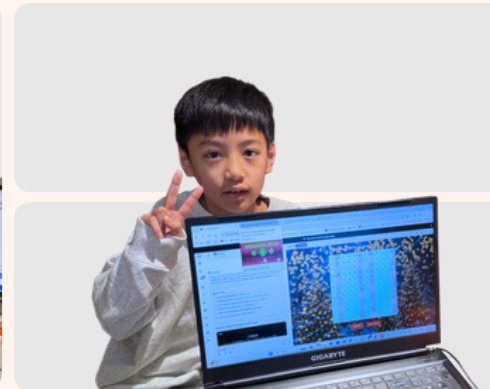
 **Scratch Creator** 
Game & animation maker — builds fun interactive projects and learns core coding logic (loops, rules, cause-and-effect).

 **AI Creator + Biz Starter** 
Young creator-founder — Create GenAI-powered storybooks, videos and simple games and learn the basics of starting a small business.

 **Research Presentation**
Evidence presenter (2 minutes) — uses data, analytics and product demo to persuade with proof.

Level 2
(Age
5-7)

 **Science Mindset**
Young scientist — asks a question, makes a prediction, tests fairly, and shares a clear conclusion.



 **Science Presentation**
Clear explainer (1.5 minutes) — delivers a structured talk with a labelled prototype and a strong takeaway.

Level 1
(Age
4-5)

 **Science Exploration**
Hands-on explorer — completes simple experiments and explains what happened with confidence.



 **Show & Tell**
Confident sharer (1 minute) — explains the project clearly using the board and prototype.



Our Signature STEAM Approach 我们的标志性 STEAM 教学法



The Proven Framework Behind Future-Ready Skills Development 成就面向未来核心技能的实证教学框架

Science & Engineering

科学与工程



Subject Pillars 学科范畴

Physics
物理

Ecology
生态学

Chemistry
化学

Astronomy
天文学

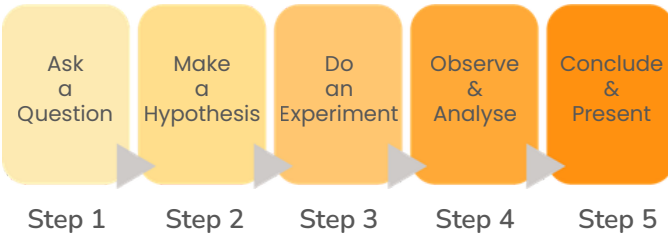
Biology
生物

Engineering
工程学

Scientific Thinking Framework

5-Step Process

科学思维五步学习法



Technology & AI

科技与人工智能



Subject Pillars 学科范畴

Coding
编程

3D Printing
3D 打印

Robotics
机器人技术

Website
网页开发

Game Design
游戏设计

Mobile App
手机应用程序设计

Tech Pitching Framework

P.R.O.V.E

科技简报框架：PROVE 五步法



AI & Entrepreneurship

AI 与创业



Subject Pillars 学科范畴

AI & Ethics
AI 与道德

Cloud Computing
云端运算

Business Planning
商业策划

Design Thinking
设计思维

AI-Human Co-creation Framework

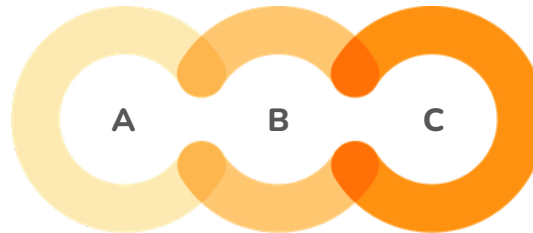
S.P.A.R.K

AI 协作五步法 - SPARK :



Presentation Framework

ABC



A - Articulation

B - Body Language

C - Confidence

Learning Outcome 学习成果

Scientific Presentation
科学演示训练

Science Fair
参与科学展览活动

Learning Outcome 学习成果

Tech Pitching
科技创业简报训练

Product Demo Day
产品展示日

Learning Outcome 学习成果

CEO Keynote Speech
CEO 主题演讲训练

AI Product Launch
AI 产品发布展示

Big Bang Academy, an accredited tech-enabled education startup founded in 2020, fosters passionate, self-directed learners. We have positively influenced over 35,000 students aged 3-16 at secondary schools, primary schools and kindergarten across the Greater Bay Area and Hong Kong. Our Co-Founders, Sarah Tong and Nixon Chan—both alumni of the University of Cambridge—were honoured as Forbes 30 Under 30 Asia 2022, solidifying our commitment to education and innovation.

Big Bang Academy 是一所于2020年成立的认证教育科技初创企业，致力于培养充满热情、自主学习的年轻探索者。我们已在大湾区及香港的中小学、幼儿园中，积极影响了超过35,000名3至16岁的学生。联合创始人Sarah Tong与Nixon Chan均毕业于剑桥大学，并于2022年荣膺《福布斯》亚洲“30位30岁以下精英”，这进一步印证了我们对教育与创新事业的坚定投入。

FIND
YOUR
SPARK

WITH OVER 35,000 STUDENTS REACHED AND 150+ PARTNER SCHOOLS AND CORPORATE

已惠及超35,000名学生，并与150多所学校和机构达成合作。

We help every child **Find Their Spark** — their life-defining moment of passion and curiosity.
我们助力每个孩子“发现他们的火花”——那定义他们人生的热爱与好奇瞬间。

Our Academic Advisors and Industry Mentors 我们的学术顾问与行业导师



Sarah Tong

- **Bachelor of Science -Engineering (University of Cambridge)**
工程学学士 (剑桥大学)
- **Master of Engineering (University of Cambridge)**
工程学硕士 (剑桥大学)
- **Forbes 30 Under 30 Asia 2022**
2022 年福布斯亚洲 30 位 30 岁以下杰出人物
- **Global Women Asia in STEM 2024**
2024 年 STEM 领域全球亚洲女性



Nixon Chan

- **Master of Art - Natural Science (University of Cambridge)**
自然科学硕士 (剑桥大学)
- **Master of Science - Electronic Commerce & Internet Computing (The University of Hong Kong)**
电子商务及互联网计算硕士 (香港大学)
- **Forbes 30 Under 30 Asia 2022**
2022 年福布斯亚洲 30 位 30 岁以下杰出人物
- **Taught more than 2,000 students**
教授超过2,000名学生

Our School and Corporate Networks 我们的合作网络



STEAM & Presentation

科学实验及演讲课

Learning Beyond Classroom

创造超越传统课堂的学习体验

K4-K5 | G1-G2 | G3-G4

WEDNESDAY

14:30-15:30 | 2026.9.9-2027.1.13

THURSDAY

15:30-16:30 | 2026.9.10-2027.1.14



5-STEPS SCIENTIFIC THINKING

培养和运用五步科学思维方法



Step 1

Ask a question

提出问题



Step 2

Make a hypothesis

做假设



Step 3

Do an experiment

做实验



Step 4

Observe & Analysis

观察与分析



Step 5

Conclusion & Presentation

得出结论并演示



 **Logic through Experiments**

动手实验，理清思维逻辑

 **English Presentation Skills**

英文演讲，锻炼自信表达

 **Think & Speak**

手脑并用，思维表达同步提升

 **STEM.org Certificate**

国际认证 (知识学习)



Sign up now

K4-K5

Course Description 课程介绍

Magical Science World is a hands-on STEAM course where children explore “wow!” science through safe, colorful experiments. Across interactive lessons, students investigate simple chemistry and early biology by mixing, bubbling, floating, and observing real changes—then connect what they see to everyday life.

Learners create art-meets-science projects like tie-dye color mixing, oil-and-water “fireworks,” bubble science, and magical milk patterns. They also become “little doctors” by building a DIY stethoscope, learning basic body parts and healthy habits, and exploring how germs spread—and how handwashing and soap help prevent them. With each class, children practice cur

《魔法科学小天地》是一套以动手做为核心的 STEAM 科学课程，孩子将透过安全、缤纷又充满惊喜的实验，在玩乐中认识科学。课程循序带领孩子探索基础化学与入门生物：从混合、起泡、漂浮到颜色扩散，用「看得见的变化」建立科学概念，并连结到日常生活。

孩子会完成结合艺术的科学作品，例如染色与色彩混合、油水烟火、泡泡实验与魔法牛奶图案；也会化身小小医生，制作听诊器、认识身体部位与健康习惯，并透过「细菌怎么传播」与「为什么要洗手」等活动理解清洁防护的重要。每一堂课都强调好奇提问、仔细观察与清楚表达，让孩子建立自信的科学思维。



Learning Outcomes 学习成果

- Develop curiosity and observation skills by predicting, testing, and describing what happens in simple experiments.
- Understand foundational science ideas, including color mixing, density and floating, diffusion, oil vs. water, and soap's cleaning power.
- Build early health awareness by learning about the body, germs, and hygiene through hands-on activities.
- 透过预测—操作—观察—描述，培养好奇心与观察表达能力。
- 认识基础科学概念：颜色混合、密度与浮沉、扩散、油水不相溶、肥皂的清洁作用。
- 建立健康与卫生观念：了解身体、细菌与良好洗手习惯。



Sign up now

12 Science classes 科学课

Chemistry - Little STEAM Artist
化学 - 小小STEAM艺术家

Biology - Little Doctor
生物 - 小小医生

Chemistry - Little Chemist
化学 - 小小化学家



3-4 Presentation classes 演讲课

No Filler Words
不说空话

Show Your Face
(Using Emotion)
露脸 (带情绪)

My Science Discovery
(5 Step Process)
我的科学发现 (五步法)



Classes Information 课程资料



Wednesday
周三

16节

Lesson: 1 hour per class, 16 lessons per term
课时: 16节/学期, 每节一小时

Sep 9,16,23 | Oct 7,14,21,28 | Nov 4,11,18,25 |
Dec 2,9,16, Jan 6,13



Thursday
周四

15节

Lesson: 1 hour per class, 15 lessons per term
课时: 15节/学期, 每节一小时

Sep 10,17,24 | Oct 8,15,22,29 | Nov 12,19,26 |
Dec 3,10,17, Jan 7,14



Minimum class size
开班人数

5 students
5人/班



%

Wednesday Tuition (16 lessons)
周三(16节)学费
CNY 5600 /Semester
5600元/学期

Thursday Tuition (15 lessons)
周四(15节)学费
CNY 5250 /Semester
5250元/学期



Sign up now

No Filler Words

不说空话

Show Your Face

(Using Emotion)

露脸 (带情绪)

My Science Discovery

(5 Step Process)

我的科学发现 (五步法)

Lessons	Science Topics	Science Descriptions
1	Dye and Colour	Fold and dye socks to explore color mixing and absorption. Kids predict patterns, squeeze safely, and observe how colors blend to create unique fabric designs.
2	Oil and Water	Drip colored water into oil to observe density differences. Kids compare falling speeds, watch droplet "fireworks," and connect the idea to everyday mixtures.
3	Soap and Water	Build bubble wands and test bubble sizes. Kids explore how soap lowers surface tension, practice gentle blowing, and observe rainbow films and popping patterns.
4	Fats and Soap	Add soap to colored milk to watch colors race apart. Kids learn how soap moves fats, practice careful dropper use, and observe clear cause-and-effect reactions.
5	Medical Tools	Build a simple listening tube to hear heartbeats and breaths. Kids notice changes after movement, count beats, and learn basic health and body vocabulary.
6	The Human Body	Assemble a human-body puzzle and place organs correctly. Kids learn organ functions, identify healthy habits, and connect each organ to its role in keeping the body working.
7	Germ & Diseases	Create germ models in playdoh Petri dishes. Kids observe different shapes, practice hygiene routines, and learn how handwashing helps prevent germ spread.
8	Germ Prevention	Drop soap into "pepper germs" to see them scatter. Kids explore surface tension, practice proper handwashing steps, and understand how soap removes dirt and oils.
9	Floaty Magic	Compare how objects float in water and oil. Kids predict buoyancy, test materials, and sort items by light versus heavy.
10	Rainbow Tube	Layer colored sugar water to create stripes. Kids learn how density affects sinking and floating while practicing slow pouring and careful observation.
11	Lemon Explosion	Mix baking soda with lemons for fizzy reactions. Kids explore acid-base chemistry, describe smells and sounds, and experiment safely with bubbling mixtures.
12	Rainbow Plate	Place candies in a circle and add water to watch colors spread. Kids observe sugar dissolving, color diffusion, and boundaries forming before mixing.

STEAM & Presentation

科学实验及演讲课

Learning Beyond Classroom

创造超越传统课堂的学习体验

K4-K5 | G1-G2 | G3-G4

WEDNESDAY

14:30-15:30 | 2026.9.9-2027.1.13

THURSDAY

15:30-16:30 | 2026.9.10-2027.1.14



5-STEPS SCIENTIFIC THINKING

培养和运用五步科学思维方法



Step 1

Ask a question

提出问题



Step 2

Make a hypothesis

做假设



Step 3

Do an experiment

做实验



Step 4

Observe & Analysis

观察与分析



Step 5

Conclusion & Presentation

得出结论并演示



 **Logic through Experiments**

动手实验，理清思维逻辑

 **English Presentation Skills**

英文演讲，锻炼自信表达

 **Think & Speak**

手脑并用，思维表达同步提升

 **STEM.org Certificate**

国际认证 (知识学习)



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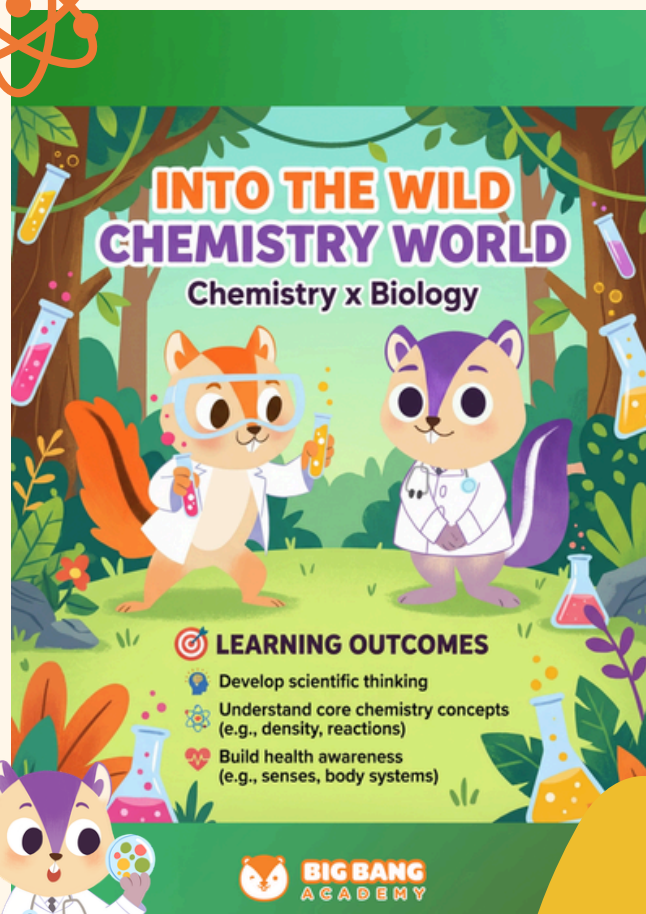
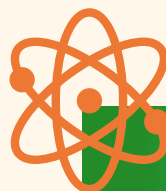
Course Description 课程介绍

Into the Wild Chemistry World is a hands-on STEAM course where students explore surprising chemistry in everyday materials—through safe experiments they can see, measure, and explain. Learners investigate sinking and floating, mixing and separating, water-repelling materials, and temperature changes, then connect these ideas to real-life problem solving.

The course also includes a “Senses & Health” unit where students explore how the body feels and functions—touch, brain signals and emotions, dental care, and movement—through interactive models and role-play activities. With each lesson, students practice predicting outcomes, observing carefully, and using science vocabulary to describe what happened and why.

《化学世界大探险》是一套以动手实验为核心的 STEAM 课程，孩子将从生活材料出发，用看得见、测得到的方式探索有趣的化学现象。课程涵盖浮沉与密度、混合与分离／过滤、疏水材料、温度变化等主题，让孩子把观察转化为可解释的科学理解。

同时课程也包含「感官与健康」单元，透过模型与互动活动认识触觉、大脑与情绪、牙齿保健及身体运动等概念。每堂课都强调预测、观察、记录与表达，逐步建立科学词汇与逻辑思考能力。



Learning Outcomes 学习成果

- Develop scientific thinking by making predictions, testing ideas safely, and recording observations from experiments.
- Understand core chemistry concepts such as density and buoyancy, mixtures and filtration, hydrophobic materials, surface tension, reactions, rusting, and osmosis.
- Build health awareness by exploring the senses and body systems, including touch, brain and emotions, dental health, and movement.
- 透过预测—实验—观察—记录，培养科学探究与安全操作能力。
- 理解核心化学概念：密度／浮力、混合物与过滤、疏水性、表面张力、化学反应、生锈与渗透作用。
- 建立健康素养：认识感官与身体运作，包括触觉、大脑与情绪、口腔保健与运动。



Sign up now

12 Science classes 科学课

Chemistry - Weird Properties
of Materials

化学 - 材料的奇特性质

Biology - Senses &
Health

生物 - 感官与健康

Chemistry - Chemistry
Wonders

化学 - 化学奇观



3-4 Presentation classes 演讲课

Vocal Delivery

声音表达

Dynamic Movements

(big, strong, and exciting body actions)

动态动作 (大、强、有感染力的肢体动作)

Peer Collaboration

(My first invention)

同伴合作 (我的第一个发明)



Classes Information

课程资料



Wednesday
周三

16节

Lesson: 1 hour per class, 16 lessons per term
课时: 16节/学期, 每节一小时

Sep 9,16,23 | Oct 7,14,21,28 | Nov 4,11,18,25 |
Dec 2,9,16, Jan 6,13



Thursday
周四

15节

Lesson: 1 hour per class, 15 lessons per term
课时: 15节/学期, 每节一小时

Sep 10,17,24 | Oct 8,15,22,29 | Nov 12,19,26 |
Dec 3,10,17, Jan 7,14



Minimum class size
开班人数

5 students
5人/班



%

Wednesday Tuition (16 lessons)

周三(16节)学费

CNY 5600 /Semester

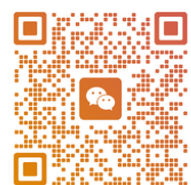
5600元/学期

Thursday Tuition (15 lessons)

周四(15节)学费

CNY 5250 /Semester

5250元/学期



Sign up now

Vocal Delivery

声音表达

Dynamic Movements

(big, strong, and exciting body actions)

动态动作（大、强、有感染力的肢体动作）

Peer Collaboration

(My first invention)

同伴合作（我的第一个发明）

Lessons	Science Topics	Science Descriptions
1	Sink and Float	Test sink-and-float objects, then create a bubbly lava lamp. Kids observe density, buoyancy, and non-mixing liquids while practicing predictions and new vocabulary.
2	Mixing and Separating	Mix sand, gravel, and water, then filter the dirty mixture. Kids explore particle size, filtration steps, and compare clarity changes after each layer.
3	Water-loving & Water-hating	Compare regular sand and hydrophobic magic sand in water. Kids observe how coatings repel water, sculpt underwater shapes, and practice close observation.
4	Heat and Temperature	Build a simple thermometer with colored water. Kids watch liquid rise and fall with temperature changes and compare warm versus cool sensations safely.
5	Sense of Touch	Assemble a textured figure and play mystery-feel games. Kids explore skin receptors, describe textures, and practice gentle, mindful touching.
6	Brain and Emotions	Use a model brain to identify basic parts and their jobs. Kids role-play emotions, match expressions, and learn how the brain sends messages.
7	Tooth & Dental Health	Brush and floss a large tooth model. Kids observe how sticky foods cling, learn about enamel and plaque, and practice healthy brushing routines.
8	Movement & Exercise	Build a jointed gymnast model to explore movement. Kids learn how bones, muscles, and joints work together and compare push and pull forces.
9	Surface Tension	Drip water onto a penny to see a dome form. Kids test how soap breaks surface tension, count drops, and compare results.
10	Neutralisation	Mix vinegar and baking soda to inflate a balloon. Kids observe gas formation, safe mixing, and how bubbles fill the balloon.
11	Metal and Rusting	Place nails in different jars to observe rusting. Kids learn rust needs iron, water, and air and compare changes over days.
12	Osmosis	Soak gummy bears in plain and salty water and measure size changes. Kids explore osmosis, compare bigger and smaller gummies, and record observations.

STEAM & Presentation

科学实验及演讲课

Learning Beyond Classroom

创造超越传统课堂的学习体验

G3-G4

WEDNESDAY

14:30-15:30 | 2026.9.9-2027.1.13

THURSDAY

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5-STEPS SCIENTIFIC THINKING

培养和运用五步科学思维方法



Step 1

Ask a question

提出问题



Step 2

Make a hypothesis

做假设



Step 3

Do an experiment

做实验



Step 4

Observe & Analysis

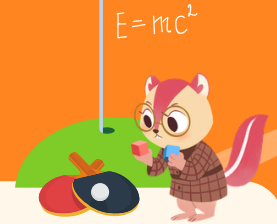
观察与分析



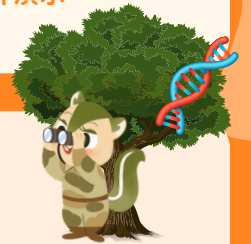
Step 5

Conclusion & Presentation

得出结论并演示



$E=mc^2$



 **Logic** through Experiments

动手实验，理清思维逻辑

 **English Presentation Skills**

英文演讲，锻炼自信表达

 **Think & Speak**

手脑并用，思维表达同步提升

 **STEM.org Certificate**

国际认证 (知识学习)



Sign up now

Course Description 课程介绍

Future Medics: Inside the Human Body is a hands-on STEAM course where students explore how the body stays healthy—through food science, chemistry, and working body-system models. Across interactive lessons, learners investigate nutrition and sustainable food choices, observe exciting chemical reactions, and build key human-body systems to understand how organs work together.

Students start as “ingredient investigators,” analyzing food groups, nutrients, and labels, then connect science to daily life by exploring food waste and simple composting. In the chemistry unit, they experiment with crystallisation, polymers, heat-releasing vs. heat-absorbing reactions, and reaction rates to see how matter changes. Finally, students build and test models of the nervous system, urinary system, circulatory system, and immune system—strengthening scientific reasoning through observation, explanation, and design.

《未来医生：人体内部大探索》是一套以动手实作为核心的 STEAM 课程，带领孩子从营养与食物科学出发，结合化学实验与人体系统模型，理解身体如何协同运作并维持健康。课程循序涵盖「吃得健康」、「看见化学变化」、到「打造人体系统」三大面向，让孩子用做得出来的方式学会科学。

孩子将先成为「食材小侦探」，认识食物六大类、关键营养素与标示判读，并延伸到食物浪费与简易堆肥，建立永续饮食观念。接着进入化学单元，透过结晶、聚合物、放热／吸热反应与反应速率等活动，观察物质如何改变。最后，孩子将制作并测试神经系统、泌尿系统、循环系统与免疫系统模型，理解器官功能与系统之间的合作关系，并练习用科学语言清楚解释现象。



Learning Outcomes 学习成果

- Understand how nutrition supports health by exploring food groups, macronutrients, labels, and sustainable food choices.
- Explain how chemical reactions and material changes work through experiments (polymers, crystallisation, heat changes, reaction rate).
- Identify major body systems and their functions by building models of the brain/nervous system, urinary system, circulatory system, and immune system.
- 了解营养与健康的关系：食物分类、三大营养素、标示判读与永续饮食选择。
- 透过实验理解化学反应与物质变化：结晶、聚合物、放热／吸热与反应速率。
- 认识主要人体系统并理解其功能：神经、泌尿、循环与免疫系统，并能透过模型建构加深理解。



Sign up now

11 Science classes 科学课

Biology - Master Chef
生物 - 主厨大师

Chemistry - Chemical
Reactions
化学 - 化学反应

Prototype Design & Creation
作品设计



4 Presentation classes 演讲课

Experiment
Selection &
Science Board
Creation

Write Your Script

Practice &
Rehearsal

Preliminary Round Video
Recording



Classes Information 课程资料



Wednesday
周三

15节

Lesson: 1 hour per class, 15 lessons per term
课时: 15节/学期, 每节一小时

TBC(具体以学校通知为准): Sep 9,16,23 | Oct 7,14,21,28 | Nov 4,11,18,25 | Dec 2,9,16 | Jan 6



Minimum class size 开班人数

5 students 5人/班



%

Wednesday Tuition (16 lessons)

周三(16节)学费

CNY 5600 /Semester

5600元/学期

Thursday Tuition (15 lessons)

周四(15节)学费

CNY 5250 /Semester

5250元/学期



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Prototype Design & Creation

作品设计

Prototype Optimisation

作品优化

Science Board Creation

制作介绍板

Lessons	Science Topics	Science Descriptions
1	Balanced Diet	Analyze food groups and build balanced meals. Kids learn essential nutrients, their roles in the body, and how to choose healthier combinations.
2	Carbs, Proteins and Fats	Use simple chemical tests to identify macronutrients. Kids explore how proteins, fats, and carbohydrates support energy, growth, and repair.
3	Veggie and Harmful Food	Evaluate fruits and vegetables and check labels for harmful additives. Kids compare nutrient value and learn to make informed food choices.
4	Food Waste and Sustainable Food	Investigate food waste and design simple composting systems. Kids explore environmental impact and brainstorm ways to reduce waste.
5	Crystallisation	Observe crystal growth to learn about molecular arrangement. Kids explore conditions needed for crystals to form and compare different shapes.
6	Polymerisation	Create stretchy polymer worms. Kids learn how monomers link into polymer chains and how these materials behave.
7	Exothermic & Endothermic Reaction	Test reactions that release or absorb heat. Kids identify exothermic and endothermic changes and compare temperature differences.
8	Rate of Reaction	Investigate how catalysts, concentration, and temperature change reaction speed. Kids compare fast and slow reactions through hands-on trials.
9	Presentation class	Experiment Selection & Science Board Creation
10	Presentation class	Write Your Script
11	Presentation class	Practice & Rehearsal
12	Presentation class	Preliminary Round Video Recording