PROGRAMS & LEARNING PATHWAYS 2027

Skills for life, not just for IT

Five programs · three levels each · ages 7–17 · primary and secondary students

Parents often ask: “My child doesn't want to work in IT - why does this matter?” Because every career, every subject and every part of daily life now runs on technology. Our programs teach the thinking, safety and confidence behind it - in small, hands-on classes.

WHAT EVERY STUDENT GAINS

Six skills that last a lifetime

Problem-solving

Breaking a big problem into small steps - useful in maths, science, sport and any job.

Critical thinking

Questioning what they see online and telling fact from fake, including AI-made content.

Staying safe online

Protecting their identity, money, photos and reputation - a life skill for everyone.

Using AI wisely

Getting real help from AI for study and work, while staying honest and in control.

Creativity & resilience

Testing ideas, fixing mistakes and trying again - the confidence that carries into every subject.

Teamwork & communication

Pair work, presentations and showcases build confidence speaking and collaborating.

WHATEVER THEY WANT TO BECOME

Technology is part of every future job

Future doctor or nurse AI already helps read X-rays and scans; patient data must be kept private.

Future lawyer or accountant Spreadsheets, data privacy law and spotting digital fraud are everyday work.

Future builder, engineer or farmer Robots, drones and sensors now run sites and farms.

Future artist, designer or creator Digital design, video and AI tools are part of every creative job.

Future business owner Online sales, spreadsheets and cyber security protect the business and its customers.

LEARNING PATHWAYS

5 programs × 3 levels

Start where your child is - move up each term

LEVEL 1

Beginner

Ages 7–10, or any age new to the topic

No experience needed. Big ideas, hands-on fun, lots of confidence building.

LEVEL 2

Intermediate

Ages 9–13, or after Beginner

Students who know the basics and are ready for real tools and longer projects.

LEVEL 3

Advanced

Ages 12–17, or after Intermediate

Teens ready for industry tools, real-world projects and senior-school pathways.

	BEGINNER	INTERMEDIATE	ADVANCED
Digital Foundations NEW	**Computer Confidence** A digital 'All About Me' booklet, saved and shared in the cloud	**Office Skills** A research report and slide presentation, with a chart built from real survey data	**Digital Productivity Pro** Event plan: budget spreadsheet, designed flyer and pitch presentation
ROBO Code	**Robot Explorers** A programmed robot mini-mission shown at the class showcase	**Mission Engineers** Autonomous delivery mission on a city mat, coded in text	**Robotics Engineers** A smart-city robot solution, tested with real data and presented to a panel
Python Pioneers	**Code Starters** A playable quiz or guessing game written from scratch	**Game Builders** An original arcade game with saved high scores	**Software Developers** A working web or data app that solves a real problem
AI Explorers	**AI Discoverers** An 'AI superhero' that solves a problem using a model the student trained	**AI Creators** An AI helper for the school community, with a fairness and safety check	**Machine Learning Lab** A trained machine-learning model applied to a real-world problem, with an ethics report
Net Kids' Security	**Cyber Safe Kids** A cyber safety guide the student teaches to a younger child	**Cyber Defenders** A family cyber safety plan and a team escape-room challenge	**Security Analysts** A security audit of a fictional company, presented as an analyst report

QUESTIONS PARENTS ASK

Straight answers

My child isn't into tech - why enrol?

This is not only about becoming a programmer. Every career now uses computers, data and AI, and every child needs to stay safe online. We teach the thinking and safety skills behind the technology, in a fun, hands-on way.

My child has never really used a computer.

Start with Digital Foundations - Beginner. It builds keyboard, file, internet, Word and safety skills step by step in a small group, so no child feels left behind before moving to coding or robotics.

How do you know which level is right?

Every free taster includes a short, friendly placement check. We recommend a level based on experience, not just age, and students can move up at the end of any term.

What does my child take home?

A project they built themselves, a certificate for each level completed, and skills they use in school straight away.

NEW PROGRAM · 3 LEVELS · AGES 7–17

Digital Foundations

Confident everyday computer skills: typing, files, internet, Word, PowerPoint and Excel.

Why it matters - even if your child never works in IT

Every subject at school and every job uses computers. Students who type quickly, organise files, write neat documents and build simple spreadsheets save hours every week and feel confident, whatever career they choose.

Tools: Windows / Mac computers, Microsoft 365 or Google Workspace, typing trainer

Level 1 · Beginner: Computer Confidence

Ages 7–10, or any age new to the topic

- **W1** Meet the computer: parts, mouse and trackpad
- **W2** Keyboard and typing basics (home row)
- **W3** Files and folders: save, find, organise
- **W4** Searching the internet smartly
- **W5** Email and messaging good manners
- **W6** Word basics: type, format, add pictures
- **W7** Design a poster or greeting card
- **W8** Strong passwords and privacy settings
- **W9** Cloud storage and sharing (OneDrive / Google Drive)
- **W10** Project: 'All About Me' digital booklet

Final project

A digital 'All About Me' booklet, saved and shared in the cloud

Students will be able to

- Use a computer, keyboard and files with confidence
- Create and format a simple document
- Search safely and protect their accounts

Level 2 · Intermediate: Office Skills

Ages 9–13, or after Beginner

- **W1** Typing speed and keyboard shortcuts
- **W2** Word: headings, tables and lists
- **W3** Word: a school report layout, spell-check
- **W4** PowerPoint: slide design that looks professional
- **W5** PowerPoint: presenting with confidence
- **W6** Excel: cells, rows and simple formulas (SUM)
- **W7** Excel: turn a class survey into charts
- **W8** Google Docs and Sheets: working together, comments
- **W9** Research skills: trustworthy sources and referencing
- **W10** Project: research report + presentation

Final project

A research report and slide presentation, with a chart built from real survey data

Students will be able to

- Produce school-ready documents and presentations
- Use formulas and charts in a spreadsheet
- Find, judge and reference reliable information

Level 3 · Advanced: Digital Productivity Pro

Ages 12–17, or after Intermediate

- **W1** Excel functions: AVERAGE, IF, COUNTIF
- **W2** Sorting, filtering and conditional formatting
- **W3** Build a personal budget planner
- **W4** Pivot tables and a simple dashboard
- **W5** Professional documents: CV, cover letter, templates
- **W6** Visual design and layout principles
- **W7** Video editing and digital storytelling
- **W8** Using AI tools for study - responsibly and honestly
- **W9** Backups, cloud workflow and organising digital life
- **W10** Capstone: plan an event - budget, flyer and pitch

Final project

Event plan: budget spreadsheet, designed flyer and pitch presentation

Students will be able to

- Analyse data with real spreadsheet functions
- Create professional documents for work and study
- Use AI tools productively and ethically

PROGRAM · 3 LEVELS · AGES 7–17

ROBO Code

Design, program and test real robots - from first moves to autonomous missions.

Why it matters - even if your child never works in IT

Robotics turns maths and science into something kids can see and touch. They practise teamwork, persistence and engineering thinking - skills just as useful to a future doctor, builder or business owner.

Tools: Sphero BOLT+ and Mini (Sphero Edu), Sphero RVR+ for Advanced, mission mats

Level 1 · Beginner: Robot Explorers

Ages 7–10, or any age new to the topic

W1	Meet your robot
W2	Driving and turning
W3	Lights and colour shows
W4	Loops and patterns
W5	Robot senses: colour
W6	Bumps and balance
W7	Smart decisions (if / else)
W8	Robot functions
W9	Mini project build
W10	Showcase for family and friends

Final project

A programmed robot mini-mission shown at the class showcase

Students will be able to

- Plan and sequence robot movements
- Use loops, decisions and functions in block code
- Work as a pair to test and fix a program

Level 2 · Intermediate: Mission Engineers

Ages 9–13, or after Beginner

W1	From blocks to text code
W2	Variables, speed, heading and distance maths
W3	Precision driving on the mission mat
W4	Sensor data: accelerometer, gyroscope, compass
W5	Events: on collision, on freefall
W6	Functions and reusable missions
W7	LED matrix animations and messages
W8	Team relay with several robots
W9	Design and test an obstacle course
W10	Project: autonomous delivery mission challenge

Final project

Autonomous delivery mission on a city mat, coded in text

Students will be able to

- Write text code to control a robot precisely
- Use sensor data and events
- Apply the engineering design cycle

Level 3 · Advanced: Robotics Engineers

Ages 12–17, or after Intermediate

W1	Sphero RVR+ hardware and safety
W2	Controlling RVR+ with Python
W3	Colour and light sensors: line following
W4	Obstacle detection logic
W5	Logging sensor data and graphing it
W6	Algorithms: path planning and mazes
W7	Robot 'brains': rules and state machines
W8	Engineering brief: design a robot task
W9	Testing, debugging and iteration
W10	Capstone: smart-city robot project and pitch

Final project

A smart-city robot solution, tested with real data and presented to a panel

Students will be able to

- Program a robot in Python using real sensors
- Design and evaluate algorithms
- Present an engineering solution professionally

PROGRAM · 3 LEVELS · AGES 7–17

Python Pioneers

Real coding made fun - games, quizzes, apps and data projects in Python.

Why it matters - even if your child never works in IT

Coding teaches logical, step-by-step thinking and calm problem-solving when things go wrong. Those habits help in maths, writing and exams, even for students who never become programmers.

Tools: Python 3, Thonny / VS Code, Replit, Pygame and libraries for Advanced

Level 1 · Beginner: Code Starters

Ages 7–10, or any age new to the topic

W1	Hello Python: print and variables	W6	Lists: storing many things
W2	Asking questions: input	W7	Functions: reusable code
W3	Maths and calculators	W8	Strings and secret codes
W4	Decisions: if / else	W9	Mini project: build a game
W5	Loops and patterns	W10	Showcase

Final project

A playable quiz or guessing game written from scratch

Students will be able to

- Write and run small Python programs
- Use variables, decisions, loops and lists
- Find and fix simple bugs

Level 2 · Intermediate: Game Builders

Ages 9–13, or after Beginner

W1	Review and clean coding style	W6	Error handling and debugging
W2	Dictionaries	W7	Intro to objects and classes
W3	Files: saving game data	W8	Pygame basics: sprites and movement
W4	Modules: random and time	W9	Build your own game
W5	Turtle graphics and digital art	W10	Showcase and peer reviews

Final project

An original arcade game with saved high scores

Students will be able to

- Structure larger programs with functions and modules
- Save and load data from files
- Use objects to build an interactive game

Level 3 · Advanced: Software Developers

Ages 12–17, or after Intermediate

W1	Project planning and Git	W6	Web apps with Flask (intro)
W2	Object-oriented programming in depth	W7	Algorithms: searching, sorting, efficiency
W3	APIs and JSON: build a weather app	W8	Testing and code review
W4	Data analysis with pandas	W9	Capstone build
W5	Charts and insights with matplotlib	W10	Capstone demo day

Final project

A working web or data app that solves a real problem

Students will be able to

- Build multi-file apps with real libraries and APIs
- Analyse and visualise data
- Work like a developer: plan, version, test, present

PROGRAM · 3 LEVELS · AGES 7–17

AI Explorers

How artificial intelligence works, how to use it well, and how to build simple AI.

Why it matters - even if your child never works in IT

AI is already part of school, work and daily life. Students learn to use it wisely, check what it says, and understand its limits - so they stay in control, whatever career they choose.

Tools: Teachable Machine, Scratch, Python, chat assistants (supervised), scikit-learn for Advanced

Level 1 · Beginner: AI Discoverers

Ages 7–10, or any age new to the topic

W1	What is AI?
W2	How machines see
W3	Teach your own AI
W4	How machines hear
W5	AI games in Scratch
W6	Chatbots and language
W7	Python power-up
W8	AI decision makers
W9	AI superhero project
W10	Showcase

Final project

An 'AI superhero' that solves a problem using a model the student trained

Students will be able to

- Explain how AI learns from examples
- Train and test a simple image or sound model
- Discuss when AI helps and when it can be wrong

Level 2 · Intermediate: AI Creators

Ages 9–13, or after Beginner

W1	How AI learns: data, patterns and bias
W2	Train a classifier and test fairness
W3	Prompting skills: getting useful answers
W4	Fact-checking AI: errors and sources
W5	AI for creativity, copyright and ethics
W6	Build a rule-based chatbot in Python
W7	Data and privacy: what AI knows about you
W8	AI in real jobs: health, sport, farming, art
W9	Project: an AI helper for my school
W10	Showcase

Final project

An AI helper for the school community, with a fairness and safety check

Students will be able to

- Write clear prompts and verify AI answers
- Recognise bias and privacy risks
- Build a simple chatbot

Level 3 · Advanced: Machine Learning Lab

Ages 12–17, or after Intermediate

W1	Machine learning: features, training, testing
W2	First model in Python with scikit-learn
W3	Accuracy, overfitting and evaluation
W4	Computer vision project
W5	Language AI: sentiment analysis
W6	Using AI APIs responsibly
W7	Ethics: bias, deepfakes and the law
W8	AI workflows for study and work
W9	Capstone: AI for a real problem
W10	Pitch and demo

Final project

A trained machine-learning model applied to a real-world problem, with an ethics report

Students will be able to

- Train, test and evaluate ML models in Python
- Explain AI ethics and limitations
- Use AI tools productively and responsibly

PROGRAM · 3 LEVELS · AGES 7–17

Net Kids' Security

Cyber safety and security - from strong passwords to thinking like a security analyst.

Why it matters - even if your child never works in IT

Scams, hacked accounts and online bullying affect everyone, not just IT workers. Knowing how to protect personal data, money and reputation is a life skill every child needs, whatever they become.

Tools: Safe browser-based labs, Python, password and phishing simulators, beginner CTF platforms (Advanced)

Level 1 · Beginner: Cyber Safe Kids

Ages 7–10, or any age new to the topic

W1	My digital footprint
W2	Strong passwords and passphrases
W3	Spotting phishing and scams
W4	Think before you click
W5	Real or fake? Checking websites and news
W6	Online friends and strangers
W7	Kindness online and cyberbullying
W8	Secret codes, downloads and updates
W9	Teach a younger student
W10	Cyber quiz showcase

Final project

A cyber safety guide the student teaches to a younger child

Students will be able to

- Create strong passwords and protect personal information
- Recognise scams and unsafe links
- Know what to do and who to tell if something goes wrong

Level 2 · Intermediate: Cyber Defenders

Ages 9–13, or after Beginner

W1	How the internet works: Wi-Fi, IP, packets
W2	Two-factor login and password managers
W3	Social engineering and scam spotting
W4	Privacy settings in apps and games
W5	Cyberbullying: respond, record, report
W6	Encryption and secret codes in Python
W7	Malware, safe downloads and updates
W8	Misinformation and deepfakes
W9	Project: our family cyber safety plan
W10	Cyber escape-room challenge

Final project

A family cyber safety plan and a team escape-room challenge

Students will be able to

- Secure their own accounts and devices
- Explain how common attacks work
- Spot misinformation and deepfakes

Level 3 · Advanced: Security Analysts

Ages 12–17, or after Intermediate

W1	Cyber careers and ethical (legal) hacking
W2	Networks and how attacks happen
W3	Cryptography in Python
W4	Hashing: how passwords are stored and cracked
W5	Analysing phishing like an analyst
W6	Web security: HTTPS, cookies, permissions
W7	Digital forensics: metadata and evidence
W8	Capture-the-Flag challenges (safe platform)
W9	Incident response: plan and practise
W10	Capstone: security audit and report

Final project

A security audit of a fictional company, presented as an analyst report

Students will be able to

- Apply core cyber security concepts ethically
- Use Python for cryptography and analysis
- Write and present a professional security report

HOW IT WORKS

From free taster to certificate

In our Haymarket centre, live online, or at your school

1. **Free taster + placement**
   A free 2-hour hands-on session. A short, friendly check tells us the right level for each student.

2. **Choose a program and level**
   Five programs, three levels each. Students can take more than one program.

3. **A 10-week term**
   Weekly 1.5-hour classes (or 3-hour weekend classes), max 10 students, with a project every term.

4. **Certificate and level-up**
   A certificate for each level completed. Students move up when they are ready - not just by age.

FOR SCHOOLS

Primary and secondary - we come to you

- Incursions, after-school clubs, holiday programs and full STEM partnerships - for primary and secondary students (ages 7–17).
- Mapped to the Australian Curriculum: Digital Technologies, with Advanced levels building skills that support senior courses such as NSW Software Engineering and Enterprise Computing.
- We bring every robot, laptop and lesson plan. Your teachers do not need to prepare anything.
- Digital Foundations gives students with little computer experience a confident start before coding or robotics.

START WITH A FREE TASTER

Book a free taster and placement check

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