

THE CRAZY SCIENTIST'S LEARNING UNIVERSE

PROGRAM OVERVIEW

Inquiry-Based STEM Workshops for Primary Schools

The Crazy Scientist Pty Ltd

★ FEATURED WORKSHOP ★

ENERGY DOME

Technology • Circuits & Electricity

YEARS 5–6 | 60 MINUTE WORKSHOP

30+ YEARS TEACHING EXPERIENCE



MISSION BRIEF

MISSION BRIEF

A meteor storm has damaged Moonbase Alpha's power systems. Students become engineering teams working in the Energy Dome as they investigate electrical circuits, renewable energy and engineering design before building and improving a Moonbase Repair Robot.

LEARNING FOCUS

- Electrical Circuits
- Renewable Energy
- Engineering Design
- Problem Solving
- Collaboration

PROGRAM SNAPSHOT

- **DURATION** 60 minutes
- **STAGE** Stage 3 (Years 5–6)
- **STUDENTS** Up to 35
- **WORKSHOP FORMAT** Mission rotation + Engineering challenge
- **LEARNING AREA** Science & Technology
- **LOCATION** Classroom or STEM space
- **SYLLABUS** NSW 2024 and 2017

- 30+ Designed by a practising classroom teacher with 30+ years of experience.
- Mission-based STEM learning that develops curiosity, critical thinking and problem-solving.
- Every student actively engaged, thinking like scientists and engineers.
- NSW 2024 Science & Technology Syllabus Aligned

thecrazyscientist.com ★ IGNITE CURIOSITY. INSPIRE DISCOVERY. EMPOWER FUTURES. ★

LOOKING FOR MORE INFORMATION?

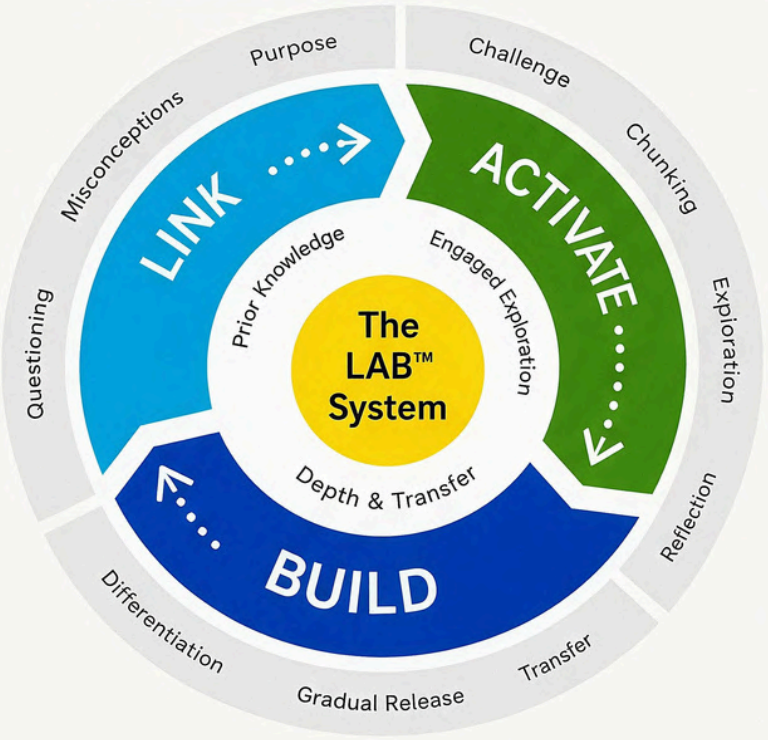
★ Full Teacher Mission Guide with detailed organisation, mission library tasks, risk-assessment, and syllabus links are provided following booking confirmation. ★

HOW STUDENTS LEARN WITH THE CRAZY SCIENTIST

Every workshop begins with our **WOW™** (**Wow** • **Wonder** • **Why**) curiosity strategy, then guides students through the **LAB System™** to build understanding, application and transfer.



THE LAB SYSTEM™



OUR LEARNING JOURNEY

WOW™ – WOW • WONDER • WHY
A high-impact curiosity experience that sparks wonder, encourages questions and gives students a reason to learn.

LINK – CONNECT
Students connect the mission to what they already know and make predictions.

ACTIVATE – INVESTIGATE
Students investigate ideas through hands-on stations and explore concepts.

BUILD – CREATE & IMPROVE
Students design, build and test solutions to solve authentic engineering challenges.

TRANSFER & REFLECT
Students explain their thinking and make connections to real-world situations.

CUSTOMISABLE TO YOUR SCHOOL, STAGE & INTERESTS

Our workshops are flexible and can be **tailored** to suit your:

YEAR LEVEL / STAGE
Activities are adapted to match students' current knowledge and skills.

CURRICULUM FOCUS
We align with your learning goals and key syllabus outcomes.

STUDENT INTERESTS
Themes and missions can be matched to spark engagement.

ABILITY LEVELS
Inquiry tasks are differentiated to challenge every learner.

AVAILABLE RESOURCES
We work with your space, time and resources.

BUILT FOR INQUIRY

Students ask questions, test ideas, make mistakes and improve.

That's how real scientists learn – and so do we!



> Scientists don't always get the right answer first.
> They ask questions. They test ideas.
> They learn from mistakes. Then they improve.
>
> – Professor Picklebottom

30+
Designed by a practising classroom teacher with 30+ years of experience.

Inquiry-based STEM learning that develops curiosity, critical thinking and problem-solving.

NSW 2024 Science & Technology Syllabus Aligned

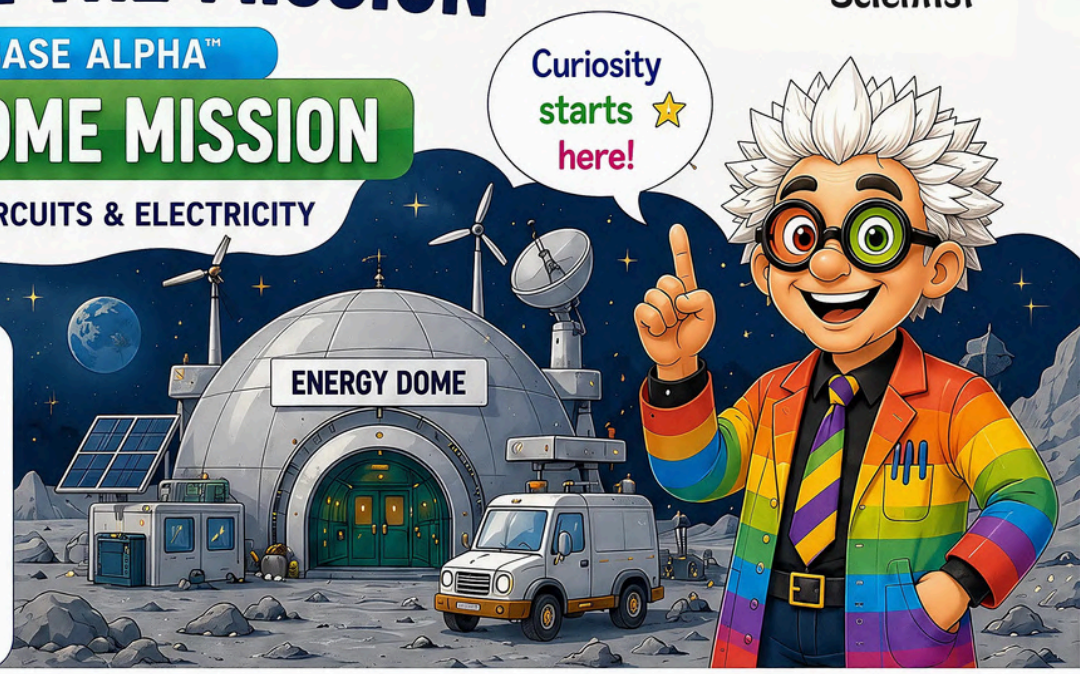
EXPERIENCE THE MISSION

The CRAZY Scientist Pty Ltd

MOONBASE ALPHA™

ENERGY DOME MISSION

TECHNOLOGY • CIRCUITS & ELECTRICITY



MISSION BRIEF

A meteor storm has damaged the Energy Dome on Moonbase Alpha.

- Power systems have failed and communication with Mission Control has been lost.
- Student engineering teams must investigate, design and build a solution to restore power to the colony.

YOUR MISSION JOURNEY

RECEIVE
Today's mission and key challenge.

INVESTIGATE
Explore, test and collect evidence through hands-on STEM activities.

DESIGN & IMPROVE
Create solutions, test your ideas and make them better.

COLLABORATE
Work together, share ideas and solve problems as a team.

APPLY & SOLVE
Apply what you've learned to complete today's mission challenge.

Times are flexible and adjusted to suit your class and needs.

CUSTOMISED FOR YOUR SCHOOL, STAGE & INTERESTS

We design every workshop to match your goals and for your students.

YOUR SCHOOL
Aligned to your learning priorities and goals.

CURRICULUM FOCUS
Linked to Science & Technology syilabus outcomes.

STUDENT INTERESTS
Themes and missions that engage and motivate learners.

STAGE & ABILITY
Activities differentiated to challenge every learner.

AVAILABLE TIME
60, 90 or 120 minute workshop options.

LEARNING GOALS
Focus on engineering, inquiry, science or specific skills.

EXAMPLE LEARNING EXPERIENCES



CIRCUIT ENGINEERING
Build and test real electrical circuits.



RENEWABLE ENERGY
Investigate solar, wind and other energy sources.



ENGINEERING DESIGN
Design, build and improve your solution.



TEAM MISSION
Use your learning to complete today's mission challenge.



> "Every class is different. That's why every mission can be adapted to suit your students."
> – Professor Picklebottom

SCHOOLS RECEIVE

- TEACHER MISSION GUIDE
- RISK ASSESSMENT
- CURRICULUM LINKS
- STUDENT MISSION JOURNAL
- CLASSROOM EXTENSION RESOURCES

Provided following confirmation of a workshop booking.

WHY SCHOOLS CHOOSE THE CRAZY SCIENTIST

The Crazy Scientist Pty Ltd

More than exciting experiments – real inquiry, engineering and problem solving.



TRADITIONAL ACTIVITY

- Read Instructions
- Follow Steps
- Finish Activity

VS

THE CRAZY SCIENTIST EXPERIENCE

Ask Questions → Investigate → Gather Evidence → Test & Refine Ideas → Explain Using Evidence



Students don't simply make things – they think like scientists and engineers.

FLEXIBLE LEARNING

Every workshop is adapted to suit your needs.

- Your School
- Curriculum Priorities
- Student Interests
- Stage & Ability
- Time Available
- Learning Outcomes
- Teacher Goals



INQUIRY BEFORE INSTRUCTION

Students take ownership of their learning through a cycle of curicsity.

- Ask Questions
- Investigate
- Gather Evidence
- Test & Refine Ideas
- Explain Using Evidence



ENGINEERING DESIGN

Students design, build and improve solutions to real-world problems.

- Design
- Build
- Test
- Improve
- Apply Learning



ALIGNED WITH THE NSW SCIENCE & TECHNOLOGY CURRICULUM

Our workshops develop the key capabilities and understandings students need for the future.

WORKING SCIENTIFICALLY
Plan and conduct investigations and evaluate evidence.

DESIGN PROCESSES
Create solutions using design thinking and evaluate and modify.

EVIDENCE & DATA
Collect, interpret and represent data and information.

SCIENTIFIC COMMUNICATION
Use scientific language and representations to communicate ideas.

COLLABORATION
Work effectively in teams and value diverse ideas.

PROBLEM SOLVING
Use strategies to solve authentic problems.



> *We don't simply teach science—*
> *we create curious thinkers who ask questions,*
> *investigate evidence and solve real problems.*
>
> – Professor Picklebottom

CURIOUS TO KNOW MORE?

Every classroom is unique.
Let's design the perfect mission for your students!

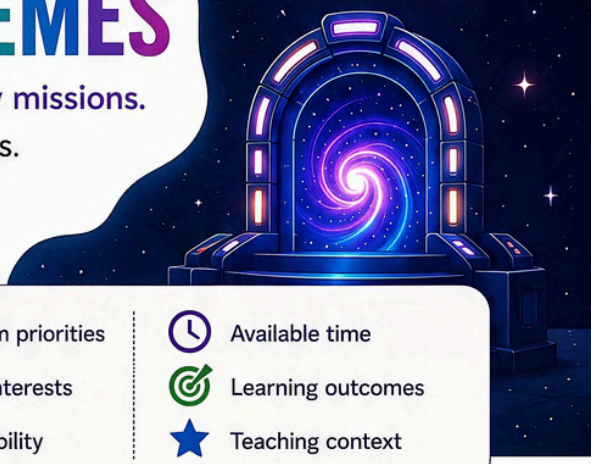
Supports implementation of the 2024 K–6 Science & Technology Syllabus
while remaining compatible with schools teaching the 2017 syllabus during the transition period.

EXPLORE OUR WORKSHOP THEMES

The Crazy Scientist Pty Ltd



One workshop theme. Many inquiry missions.
Designed around your students.



EVERY CLASS IS UNIQUE.

We don't deliver the same workshop every time. Each theme contains a growing library of inquiry missions that can be selected and adapted to suit:

- Curriculum priorities
- Student interests
- Stage & ability
- Available time
- Learning outcomes
- Teaching context

OUR WORKSHOP THEMES

Ten exciting themes – each filled with inquiry-based missions that spark curiosity and deepen understanding.

SICKENING SCIENCE LAB
- States of Matter
- Chemical Change
- Polymers

Many inquiry missions available

SCIENCE DETECTIVE ACADEMY
- Habitats
- Food Chains
- Adaptations

Many inquiry missions available

LIGHT & COLOUR LAB
- Colours
- Refraction
- Reflection

Many inquiry missions available

EXTREME EARTH EXPLORERS
- Rocks & Fossils
- Volcanoes
- Natural Disasters

Many inquiry missions available

THE HUMAN MACHINE
- The Human Body
- Skeletons & Movement
- Adaptations

Many inquiry missions available

COSMIC EXPLORERS
- Space Exploration
- Earth, Moon & Sun
- Gravity & Motion

Many inquiry missions available

INVENTOR'S WORKSHOP
- Engineering
- Simple Machines
- Circuits & Electricity

Many inquiry missions available

ANIMAL CSI
- Adaptations
- Habitats
- Classification

Many inquiry missions available

RENEWABLE ENERGY LAB
- Renewable Energy
- Energy Sources
- Energy Transfer

Many inquiry missions available

HIDDEN MESSAGES & SECRET CODES
- Codes & Patterns
- Hidden Messages
- Clues & Logic

Many inquiry missions available

LEARNING DOESN'T STOP WHEN THE WORKSHOP ENDS

WORKSHOP – Engaging inquiry missions

→ **CLASSROOM EXTENSIONS** – Deepen and apply learning

→ **LEARNING UNIVERSE** – Articles, videos and curiosity hooks

→ **FREE EXPERIMENTS** – Try it at home or at school

→ **CRAZY SCIENCE LAB™** – Unlock more challenges and missions

→ **CURIOUS THINKERS** – Inspire the next generation of innovators!

Students continue exploring concepts through free experiments, Curiosity Files and classroom extension activities.

Every workshop is different. That's the magic of the Learning Universe!

Built on inquiry.
Designed for impact.
Created by teachers.

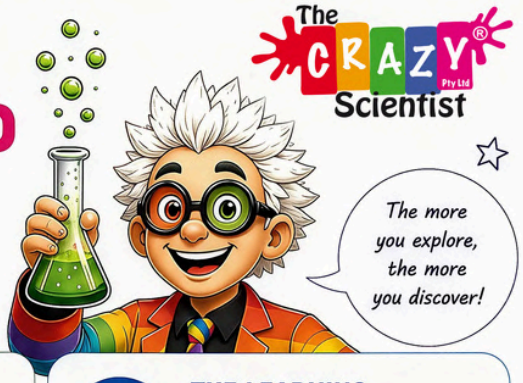


"We design experiences that ignite curiosity, build confidence and empower students to think, question and solve real problems."
– Professor Picklebottom

Ready to explore?
Let's design the perfect mission for your students!

SUPPORTING LEARNING BEYOND THE WORKSHOP

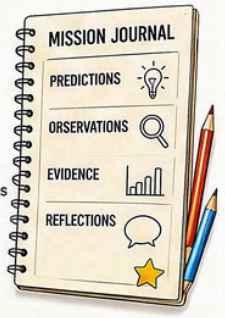
Our workshops spark curiosity in the classroom.
These resources help learning keep growing long after we leave.



STUDENT MISSION JOURNAL (PRINTABLE PDF)

A printable student workbook designed to record predictions, observations, evidence and reflections throughout the learning journey.

- Record predictions
- Collect observations
- Explain their thinking
- Reflect on investigations
- Complete extension challenges

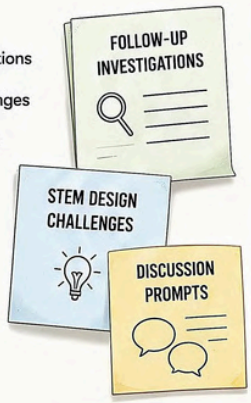


Printable PDF provided with workshop booking.

TEACHER CLASSROOM EXTENSION PACK (PRINTABLE PDF)

Ready-to-use classroom investigations, STEM design challenges and discussion activities that extend learning after the workshop.

- Follow-up investigations
- STEM design challenges
- Discussion prompts
- Cross-curricular activities
- Curriculum connections
- Assessment opportunities



Printable PDF provided with workshop booking.

THE LEARNING UNIVERSE

Available FREE for teachers and families

Our growing collection of free resources designed to extend classroom learning and inspire curiosity every day.

- **Curiosity articles** — Inspiring stories and amazing facts
- **Free inquiry experiments** — Hands-on investigations for the classroom and at home
- **Hook videos** — Short, engaging videos to spark curiosity
- **Illustrated facts** — Visual explanations of big ideas
- **Curiosity Files** — Answering the weird and wonderful
- **The Teacher's Cauldron** — Ideas, tips and conversations for teachers
- **Road Trip Science** — Everyday science on the move

Free. Accessible. Curriculum friendly. Made for curious minds.

OUR WORKSHOPS INSPIRE LEARNING EVERYWHERE



AT THE WORKSHOP
Engaging, hands-on inquiry missions



IN THE CLASSROOM
Extend, apply and deepen learning



IN THE LEARNING UNIVERSE
Explore, discover and stay curious every day

Our workshops are designed to inspire learning in the classroom, at home and beyond.

SCHOOLS BOOKING A WORKSHOP RECEIVE

TEACHER MISSION GUIDE (PDF)
Detailed lesson plans, workshop preparation, curriculum information and risk assessment.

STUDENT MISSION JOURNAL (PRINTABLE PDF)
Printable student workbook for recording predictions, observations, evidence and reflections.

CLASSROOM EXTENSION PACK (PRINTABLE PDF)
Ready-to-use investigations, challenges and activities to extend learning in your classroom.

RISK ASSESSMENT & SAFETY DOCUMENTS
Customised risk assessments and safety information for your workshop.

CURRICULUM INFORMATION
Syllabus alignment and learning outcomes relevant to your workshop.

Digital resource packs are supplied following workshop confirmation.
Teachers may print as many copies as required for their participating class.



READY TO INSPIRE YOUR STUDENTS?

Our mission-based workshops make science exciting, meaningful and unforgettable. Let's create the perfect experience for your class!

EXPLORE THE LEARNING UNIVERSE
Free resources for teachers and families.

CONTACT US
We'll help you choose the perfect workshop for your students.

Curiosity today. Confidence tomorrow. Problem solvers for life.