GRIFFITH UNIVERSITY

Science on the GO!
Griffith University Science Outreach Program

Gold Coast Schools Science Competition

Open to all state, independent and catholic primary and secondary schools in South East Queensland and Northern New South Wales.

31 August - 3 September 2026

GRIFFITH UNIVERSITY
GOLD COAST SCIENCE COMPETITION

When:	31 August – 3 September 2026
Where:	Queensland Academies – Health Sciences Campus (QAHS)
	102 Edmund Rice Drive Southport, QLD, 4125
Deliveries received:	Monday 31st August – 7.30am to 3pm to QAHS
Judging:	Monday 31st August – 3:30pm until finish (~7pm)
Winners Notified:	Tuesday 1st and Wednesday 2nd September
Open for viewing:	Thursday 3rd September 4.00pm – 6.00pm
Awards Ceremony:	Thursday 3rd September at 6.00pm at QAHS Lecture Theatre

Entries are to be collected either immediately after the awards ceremony or Friday 4th September – 8:00am to 2.30pm ONLY. If projects are not collected within these dates, they will be disposed of.

PROJECT CATEGORIES

Scientific Investigations
Engineering and Technology
Classified Collections
Communicating Science
Environmental Action

YEAR LEVEL DIVISIONS

Prep
Years 1-2
Years 3-4
Years 5-6
Years 7-8
Years 9-10
Years 11-12

Students may work individually or in pairs **only**

Registration & Payment

- Registrations open online approx. 1 month prior to the competition and close on 26th Aug
- Register online at www.griffith.edu.au/science-competition
- Only entries that are registered online will be judged
- Previously entered projects (from 2025 or earlier) will not be judged
- $5.00 per entry –
  An invoice will be sent to schools with registered entries once registrations have been finalised

During the registration process, each registered school **must nominate at least 1 judge per 20 entries** for the judging on Monday 31st August (4pm until finish) at the QAHS

Conditions of Entry:

Every registered entry must:

- include a signed statement by the teacher confirming 100% child's work (See Appendix 1)
- include a scientific notebook (reflective journal) (See Appendix 2)
- be identified with a label with the following details (see diagram below):
  - Student Name/s
  - School
  - Division
  - Category
  - Title
  - If multiple parts: Label each part, e.g. Part 1 of 2

Part _____ of _____

Student Name/s:

School Name:

Division: **Prep | Yrs. 1-2 | Yrs. 3-4 | Yrs. 5-6 | Yrs. 7-8 | Yrs. 9-10 | Yrs. 11-12**

Category: ***Enviro Action / Comm Science / Eng and Tech / Sci Investigation / Class Collections***

Project Title:

FOR FURTHER INFORMATION

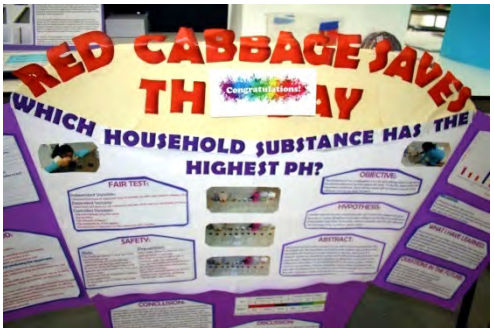
Anita Brant
Griffith University Gold Coast Campus
a.hazell@griffith.edu.au
(07) 5552 7205

Sid Hooker
Griffith University Gold Coast Campus
s.hooker@griffith.edu.au
(07) 5552 8341

SCIENTIFIC INVESTIGATIONS

This category is eligible for the STAQ (Science Teachers Association of QLD) Science.

The Task:
Design and perform a scientific investigation and report on the results obtained and the conclusions reached.



What to do:

- Choose a topic, there are no restrictions.
- Keep a day-by-day Scientific Notebook that explains what you do and why (see Appendix 2) Students may work individually or in pairs.
- Ask questions about your topic.
- Collect the necessary background information about your topic.
- Design and perform one or more experiments that will make up the investigation.
- Analyse the results and draw your conclusions.
- Present a report to tell others what you did and what you found out.
- Include any references and acknowledge the assistance you receive.
- Scientific Notebook (see Appendix 2).

What makes a winning entry?

Relevance of Topic	Provides *background information* for the choice of the investigation.
	Makes a *prediction* and provides plausible reasoning
Plan of the Investigation (Design)	Plans for the project demonstrate *evidence of a fair test investigation*
	Clearly *identifies and describes* each variable for a fair test
	Evidence of how *to manage the work safely*, collection of reliable data and/or other evidence.
Results	*Use of* graphs, tables or other *representations*. Age appropriate summary of data
	Identification/*Discussion* of any errors/problems experienced during the investigation.
Data and Conclusions	*Provides a conclusion* that discusses the key findings of the investigation. E.g.: Was my initial aim/ hypotheses achieved?
	Communicates the investigation and findings *appropriately* using scientific language and representations at an age appropriate level.
Understanding of Data	*Suggests effective improvements* to methods and quality of data collection. E.g.: If I did this again…., I repeated the process because…, I observed that…
Legibility	*Presents* the investigation in a legible, logical and age appropriate manner.
Acknowledgements (Scientific Literacy)	A list of resources, websites, reference books is provided to show *appropriate level of research* for student age and year level.
Evidence (Notebook)	*Notebook* contains evidence of scientific thought. Accurate/ detailed *notes of findings, decisions and thought processes* are evident and a true representation of the student's age, learning and understanding.

ENVIRONMENTAL ACTION PROJECT

The Task:
To identify, research, investigate and present recommendations about a local environmental issue.

Some examples of local action projects;

- Green Power
- Rainwater Harvesting
- Energy Conservation
- Recycling
- Pollution
- Soil quality
- Greenhouse effect
- Climate change
- Air Quality
- Recycling
- Renewable Energy
- Water Purification
- Waste Management
- Balanced Ecosystem
- Organic Garden

What to do

- Identify and research a local environmental issue. Students may work individually or in pairs (separate notebook each)
- With the help of people in the community, set about investigating and resolving the problem. E.g.. Survey, questionnaire, videos
- Choose the best way to present your data e.g. poster report etc
- Provide recommendations for future action.
- Scientific Notebook (see Appendix 2)

or

What makes a winning entry?

Relevance of Topic	Clearly identifies/describes a local environmental issue that can be investigated. (age appropriate explanation) I.e.: What is the problem? What are the reasons for the action?
	Relevance to community and evidence of plausible outcomes are provided for the action project. E.g.: brainstorming matrix, diagrams, lists.
Research/ Planning	Collection of data/information about the existing problem is provided. (age appropriate) (e.g. Surveys, letters, questionnaires)
	Shows a clear understanding of the environmental issue with a concise plan to help resolve the issue identified.
	Clear explanation of: - how the action plan has addressed the problem - ways in which the outcomes reflect the original aims for the action project (age appropriate)
Creativity	Demonstrates an original and creative approach to solving an environmental problem. (Appropriate for age and knowledge of student)
Legibility (Notebook)	A reflective journal is provided. - Records the problem and actions of the project. - Contains evidence of scientific thought that demonstrates the student's understanding of science learning from the task.
Evidence	Presents the investigation and resulting action plan as a poster, report or video.
	Has provided evidence of work ensuring the investigation is a true representation of the student's age, learning and understanding. Evidence of/acknowledgement of any assistance received

ENGINEERING AND TECHNOLOGY

This category is eligible for the STAQ (Science Teachers Association of QLD) Science competition.

The Task
Create a device or product to demonstrate a scientific principle (1), or solve a problem (2) or offer a different approach to a problem (3)

What to do:
The entry must be a physical device or product with maximum dimensions of *76cm in depth, 122cm in width and 100cm in height.*

The entry:

- must not be static except for new devices or products
- must satisfy one of the following:

(1) Demonstrate scientific principle;
(2) Solve a problem; or
(3) Offer a different approach to a problem

- must be accompanied by a Scientific Notebook (see Appendix 2)
- Students may work individually or in pairs (Notebooks required from both students)

Entries that make use of 240v power must be accompanied by a signed note of compliance as being supervised during the construction and testing by an appropriately qualified person.

Although some of the following may be used in the development phases they will NOT be accepted as part of the display:

1) Living organisms, including plants
2) Soil, sand, rock, and/or waste samples, even if permanently encased in a slab of acrylic
3) Taxidermy specimens or parts
4) Preserved vertebrate or invertebrate animals
5) Human or animal food
6) Human/animal parts or body fluids (for example, blood, urine)
7) Plant materials (living, dead, or preserved) that are in their raw, unprocessed, or non-manufactured state
8) All chemicals including water (Projects may not use water in any form in a demonstration)
9) All hazardous substances or devices (e.g. poisons, drugs, firearms, weapons, ammunition, reloading devices, and lasers)
10) Dry ice or other sublimating solids
11) Sharp items (for example, syringes, needles, pipettes, knives)
12) Flames or highly flammable materials
13) Batteries with open-top cells
14) Glass or glass objects
15) Any apparatus deemed unsafe by the coordinator or judges (for example, large vacuum tubes or dangerous ray-generating devices, empty tanks that previously contained combustible liquids or gases, pressurized tanks, etc.)

What makes a winning entry?

Relevance of Topic DEFINE	Define/outline the problem to be solved. I.e.: The problem should be substantial, age appropriate and relevant.
	Plausible aims for the Project are provided. I.e.: Explain how the problem is significant and relevant.
Plan of the Project IDEATE	Provides evidence of the initial design ideas for the device/product. e.g. Shown via note-taking (notebook) , diagrams, research provided, surveys etc. (age appropriate)
	Evidence of a plan to solve the initial problem is provided. E.g. Written processes, labelled diagrams, visual representations (age appropriate)
	Consideration of ways in which safety has been considered in the designing/creation of the prototype is provided. E.g. parental support, specific safety materials etc.
The Design Phase: a) The Prototype b) The Testing and Implement Phase	Selection of materials is provided.
	The construction process is clearly outlined and age appropriate. E.g.: Written steps, photographic evidence, the progression of the construction phase.
	Describes or provides visual evidence of the testing process for the prototype. E.g. video, images
	Includes outline of the successes and/or failures. Suggests improvements as a result. Considers and records changes to the prototype as a result of the testing. (Note-booking)
	Evidence of data collected during the testing phase. (age appropriate) e.g.: surveys, tables, graphs, photo evidence/captions
	Evidence of the final design is shared. The project should not exceed 76cm in depth, 122cm in width and 100cm in height
Project presentation	Provided with a 2-5 min presentation of the device/product in operation. E.g. Video (MP4), PPT, GIF, online link
Evidence (Notebook)	Appropriately acknowledges any assistance/reference material. I.e.: clarification showing which aspects of the project were devised and carried out alone and which aspects were not and what sort of assistance was provided.

CLASSIFIED COLLECTIONS

The Task:

To compile and present a scientific classified collection to show relationships between the items in the collection, or to assist in their recognition. Classified collection examples include a collection of specimens of plants, rocks, insects, shells etc.

What to do:

- Plan, collect, classify and display/organise specimens of a collection to:
  - Help in the understanding of the material that is being collected or help in the solution of some other problem
- Explain how they have classified the collection using a specific legend or key and an explanation in their notebook about it.
- Scientific Notebook (See Appendix 2) Students may work individually or in pairs.

Some Ideas to collecting in different fields of botany, geology, entomology and zoology.

Botany

A classified plant collection might deal with a group of plants (e.g. ferns, conifers, palms, grasses, eucalypts, wattles), it might be the flowers of plants that are found in a particular area, or it might be a collection classified according to leaf shapes, flower or fruit characters, or chemical components (aromatic leaves), or it may be for a purpose such as identifying weeds in a locality. In these cases, it is important to explain why the collection was undertaken, and to show how the classification was developed.

- A collection of seeds might investigate the relationships between seed composition (carbohydrate, protein, fat) and taxonomic group, or between seed size and plant habit (food plant, weed, and forest plant).
- A collection of weeds would ideally include some information that assisted in their identification (a key of some sort as discussed below), and comments on issues such as their importance, origin, manner of spread and difficulty of control.
- A collection of herbs might examine how they are distributed between families of plants, their regions of origin, and how they are used (directly or after processing).
- How to preserve plant specimens:
  - Choose specimens that contain stem, leaf, flowers, fruit/nut, seeds if possible.
  - Layout newspaper (greater than the size of specimen), add 2 layers of paper towel, place specimen on paper towel, add 2 more layers of paper towel, then a layer of newspaper; continue process with the next specimen; press specimens by placing in a flower press or by placing a heavy object on top. E.g. Books; change paper towel and paper daily; continue for 1-2 weeks.
- Display specimens with a label: with common name, scientific name, date of collection, location of collection.

Geology

A classified geological collection becomes more valuable when the relationships between rock types are examined, or when the collection is assembled to assist in the identification of rocks or minerals. Relationships between rock types may be examined on a local or a larger scale, but there should be a question asked concerning these relationships. An assemblage of rock types for identification should concentrate either on a class of rocks or on minerals that are important in a locality or region (e.g. important commercial minerals).

- Display specimens with a label: e.g. Identification, date of collection, location of collection

Entomology

A classified insect collection might concentrate on the insects occurring in a backyard over a period of time, or it might concentrate on a particular group of insects that can be collected from a region, or it might survey the orders of insects that can be collected in a region. The purpose for the collection should be to increase understanding of insects, and this purpose should be made clear in the Scientific Notebook.

- Displaying specimens:
    - Search the web for *preservation & pinning methods*:
    - This will assist with display methods of a variety of species.
    - Labelling: e.g. Identification, date of collection, location of collection

Zoology

A classified collection of animals (other than insects) will usually be of durable discarded parts (shells or feathers). Shells are used to identify some invertebrates, so the taxonomic relationships may be examined at a number of scales of organisation. Feathers are attractive, but the purpose of collecting and classifying should be more than to simply gather and arrange. There may be an opportunity to examine the relationship between feather size and bird size, or habitat (for example, is it possible to show that water birds have different feathers from land birds?), so there is a question behind the collection.

- Display specimens with a label: e.g. Identification, date of collection, location of collection

IMPORTANT!

Protected Species

Be aware that there are a number of protected species and protected areas in Queensland where collecting is prohibited. They are protected because they are valuable or vulnerable. Ensure that collected specimens are not listed by the Department of Environment, Science and Innovation or collected from a protected area.

Go to : http://www.des.qld.gov.au/wildlife

What makes a winning entry?

Collection	Representation and Identification of specimens which can be *classified scientifically in a plausible group*
Plan of the Project (Classification of collection/ Display/ Research)	Making plausible *groupings* to show similarities and differences
	Clear presentation of specimens
	Categories clearly identified and presented. *Age appropriate* classification.
	Application of science knowledge to generate plausible and informed classification schemes
	Evidence to show the relationships between the items in the collection to assist recognition
Creativity	Demonstrates an original and creative *approach* to the choice of specimens and their display
Acknowledgements (Scientific Literacy)	A list of *resources*, websites, reference books is provided to show appropriate level of research for student age and year level.
Evidence (Notebook)	Has *provided evidence of work* (such as workings and/or *notes*) ensuring the investigation is a true representation of the student's age, learning and understanding.

COMMUNICATING SCIENCE

The Task:
To *explain* and *communicate information* about a *scientific concept* to a *specified audience*

What to do:

- Present a scientific concept using a communication medium (Model, Poster, PowerPoint Presentation, Game, Comic Strip). Students may work individually or in pairs.
- Scientific Notebook (see Appendix 2) (1 per student)
- Written report (see guidelines below)

Your written report should:

- explain the scientific concept you have chosen.
- include your background research information, references, and permission to use copyrighted material (if applicable)
- identify and describe the target audience (examples could be: preschool students, aged pensioners without a scientific background, the general community)
- justify your choice of communication medium for your target audience.

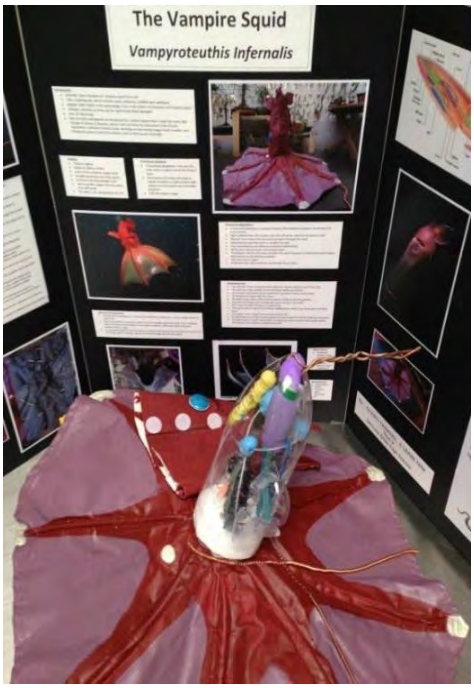
Choices of Communication Mode

Model

- 3D representation of a scientific concept including title, labels
- Not exceed 600mm (H) x 500mm (D) x 600mm (W) (Height x Depth x Width)
- Original construction

Cartoon/Comic Strip

- A single or series of cartoons which are hand drawn or computer generated which communicate a scientific concept
- The presentation must not exceed an A1 size (600mm x 840mm).
- The cartoons/images must not be subject to copyright or a letter stating that you have received permission to use the work
- The comic strip must be an original piece of work.



Game

- The game may be a board or a computer generated game which communicates a scientific concept
- The game must be an original piece of work.
- Clear Instructions must be included.

Poster

- A single or series of diagrams/paintings/drawings with text which communicates a scientific concept
- The poster must be "flat" or 2D two dimensional.
- The presentation must not exceed 850mm x 1200mm.
- The images must not be subject to copyright or a letter stating that you have received permission to use the work
- The presentation must be an original piece of work.

PowerPoint Presentation

- A series of slides with/without sound which communicates a scientific concept – with paper printout of slides
- The presentation must be an original piece of work.
- The images must not be subject to copyright or a letter stating that you have received permission to use the work

Multi-media presentation

- A visual media presentation which communicates a scientific principle
- The presentation must be an original piece of work not longer than 2 minutes
- The images must not be subject to copyright otherwise a letter stating that you have received permission to use the work

What makes a winning entry?

Topic	The topic/scientific concept choice is *clearly explained and/or justified with reasoning* for its selection.
	Background research information is evident to support the topic/concept choice.
Project (Audience, Scientific Research, Planning)	The chosen medium *communicates the concept* being presented.
	Explanation of how the chosen medium is *suited to the intended audience* is *evident and justified.*
	Planning for the communication medium is evident.
	Evidence of science knowledge to effectively communicate the scientific concept. It is *age appropriate* for the audience intended
Communication	Represents and *communicate observations, ideas and findings* using formal and informal representations
	Clear *communication of the scientific concept* with the audience in mind
	Visually appealing and *effective use of design principles* for the selected medium
Validity	*Meets specifications* for the category – cartoon/comic strip; Game; Poster; PowerPoint Presentation; website or model or video
Presentation	Presentation is informative/effective and demonstrates ingenuity/originality
Acknowledgements (Scientific Literacy)	A list of resources, websites, reference books is provided to show *appropriate level of research* for student age and year level.
Evidence (Notebook)	*Notebook* contains evidence of scientific thought Accurate/ detailed *notes of findings, decisions and thought processes* are evident

APPENDIX 1

GOLD COAST SCIENCE COMPETITION 2026 STUDENT WORK AUTHENTICATION LETTER

The following letter must be submitted for each registered entry into the competition, signed & dated by student/parent and teacher.

Student Name:

School:

Division:

Category:

Project Title:

Dear Competition Judges,

By signing this document, I declare that the work submitted as an entry in the Gold Coast Science Competition is my own work. I have not previously submitted all or part of this work in previous Gold Coast Science Competitions.

Student/Parent Name:

Student/Parent Signature:

Date:

As a teacher of the above student, I support this authentication letter.

Teacher Name:

Teacher Signature:

Date:

APPENDIX 2
SCIENTIFIC NOTEBOOK

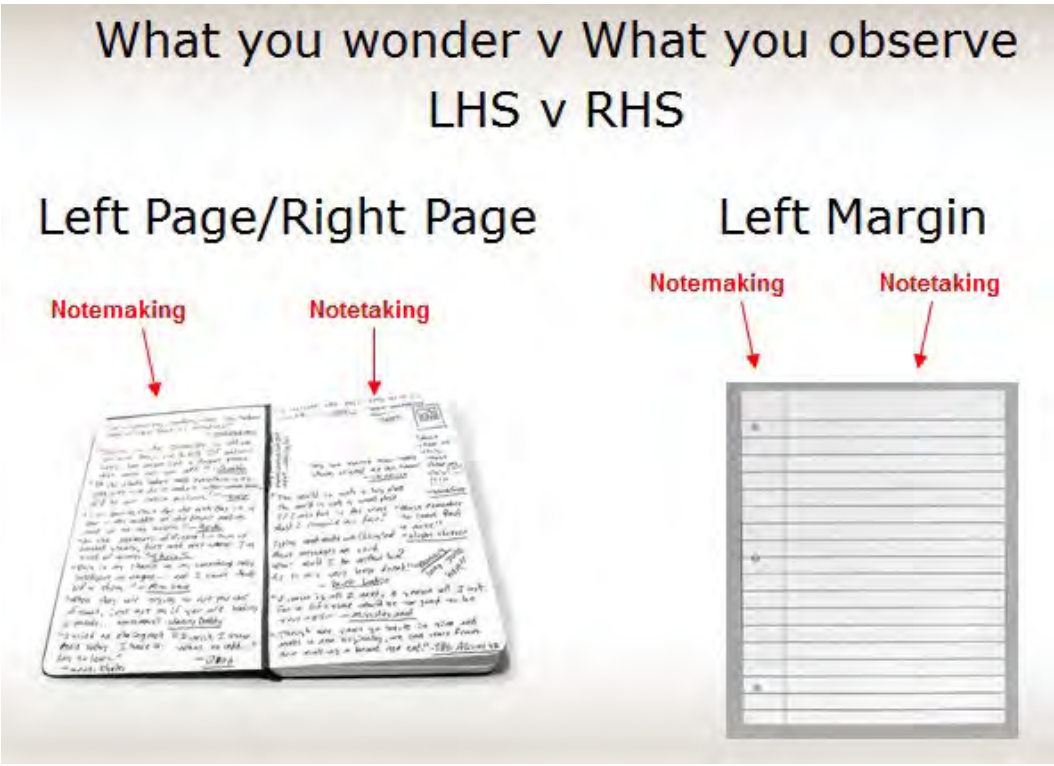
The Scientific Notebook is very important in showing the purpose behind the study, and the way in which the question evolved and was tackled, as well as a record of how the project progressed over time. A Scientific Notebook helps the student make sense of their science learning.

- A Scientific Notebook should be kept as a record of what was completed on different days – include dates
- A Scientific Notebook should contain evidence of scientific thought – include thoughts, questions, insights
- The Scientific Notebook should be a series of ideas, methods and findings
- Accurate and detailed notes of your findings, decisions and thought processes assist the project in becoming a winning entry.
- Good notes show consistency and thoroughness to the judges.
- Acknowledge any assistance received.
- Can be either typed or handwritten.

Notetaking and Note-making

You may like to use the right-hand side (or pages) of your notebook to record investigations including investigation question, prediction/hypothesis, method, materials, observations/measurements, labelled drawings, graphs, discussion, conclusions. This is note-taking.

You may choose to use the left-hand side (or pages) of your notebook to record your thoughts and reflections on what is happening or questions or ponderings or rough diagrams/sketches etc. This is called Note-making.



For more information, email: scienceonthego@griffith.edu.au or visit www.griffith.edu.au/science-on-the-go