

2023

Event Report

Author: COE Plant Success (Convenor)



THE EVENT

The National Science Quiz is a major Australia-wide live event on the National Science Week calendar and has been evolving each year since its conception in 2016. This year the quiz was held in Melbourne at The Capitol Theatre on Swanston Street on Sunday 27th August at 3:30pm.

The quiz is a celebration of science with fun, challenging questions, live on-stage demonstrations and special guests - all with a healthy dose of fun, rivalry and entertainment. The quiz is a both a school and family friendly event aimed at ages 12+ and hopes to inspire the next generation of Australia's leading scientists.

Hosted by Charlie Pickering from ABC TV's The Weekly, two teams of scientific panellists, supported by special guest team captains, compete to win the title of National Science Quiz champions.

Inspired by the popular **De Nationale Wetenschaps Quiz** that ran for many years on TV in The Netherlands, Australia's National Science Quiz covers all areas of science with around 40 thought-provoking questions in 3 different formats.

Participants, both in the live audience or playing online, can also play along with the quiz via a live online poll to compete for a range of prizes, including a new secondary schools prize of \$1000 - that attracted 38 teams competing Australia wide. Members of the public also contribute by uploading video questions for selection on the quiz.

QUICK STATS

REGISTRATIONS

Pre-Quiz Registrations: 549 (1358 people)

Secondary School Teams: 38 (221 students)
Primary School Teams: 23 (452 students)
Other Teams: 74 (271 people)
Individuals: 414

THE CAPITOL

Tickets sold: 259

VIP/Giveaway tickets: 50

TOTAL in Audience: 309

ONLINE

Livestream views during Quiz: 820

(Note: multiple people watching each view)

Livestream views: 2K

(as of 1/11/2023)

PLAYING THE QUIZ

Participants playing the quiz on Slido: 399

(note: only one login per team)



PARTNERS	COMMITTEE MEMBERS	
ARC Centre of Excellence for Plant Success (Convenors)	Emma Horswill (Chair)	
	Assoc. Prof. Eloise Foo	
	Caitlin Dudley	
	David Tomlins	
Matrix	Tom Keegan	
Australian Data Science Network (ADSN)	Timothy Macuga	
Optima	Charlotte Hurry	
	Helen Allison	
CSIRO	Lizzie Duthie	
	Julie Cumming	
ARC Centre of Excellence for Engineered Quantum Systems (EQUS)	Lachlan Rodgers	
ARC Centre of Excellence for Synthetic Biology (CoESB)	J-L Heylon	
	Mary O'Malley	
ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav)	Jacqui Bondell	
Melbourne Centre for Data Science (MCDS)	Kirsten Doert Eccles	

SPONSORS

ARC Centre of Excellence in Exciton Science (EXCITON)	Joshua Ezackial
	Wallace Wong
ARC Centre of Excellence for Climate Extremes (CLEX)	JB Brown
ARC Centre of Excellence in Future Low-Energy Electronics Technologies	Jason Major
(FLEET)	Karen Byros
ARC Centre of Excellence in Plants for Space (P4S)	Leike Vanderhulst
RMIT University - The Capitol Theatre Venue Sponsor	



TALENT

Charlie Pickering Host

Nate Byrne Special Guest Team Captain - Team 1

Simon Pampena Special Guest Team Captain - Team 2

Joshua Ezackial (COE Exciton)

On-Stage Lab Assistant

Caitlin Dudley (COE Plant Success)

On-Stage Lab Assistant

SCIENTIFIC PANELLISTS

Associate Professor Marcy Robertson (Uni of Melb)

Panellist Team 1

Dr Paige Erpf (CoESB) Panellist Team 1

Professor Jon Whittle (CSIRO) Panellist Team 2

Dr Rebecca Allen (OzGrav) Panellist Team 2

VIDEO QUESTIONS

Dr Cathy Foley - Australia's Chief Scientist (CSIRO)

Special Guest Video Question

Dr Karl Kruszelnicki - Author and Science Communicator Special Guest Video Question

Karlie Noon - Indigenous Astronomer & PhD Candidate Special Guest Video Question

Corey Tutt - Founder of Deadly Science Special Guest Video Question

Aditya Goyal - Public Video Question Submission Special Guest Video Question

Eli Hinze - CSIRO Stem Together Future Shaper Special Guest Video Question

Delilah Vogel - Public Video Question Submission Special Guest Video Question

Dr Timothy Riley & The Nao Robot Team - RMIT On-Stage Guest Appearance

SPECIAL GUESTS

Dr Karl KruszelnickiAuthor and Science Communicator



Dr Cathy FoleyAustralia's Chief Scientist





readly kience

CONSULTANTS

Moo Marketing - Damien Hanger & Team	Provision of Marketing Plan, How-to-Play guide, revamp of the National Science Quiz Website and production of downloadable resources for teachers.
Let's Talk Admin - Enza Kursun - Virtual Assistant	Provision of direct marketing to schools (phone calls and emails) to inform of schools prize. Also assistance with Email Marketing campaign via Mail Chimp.
Innovate Communicate - Claire Harris	Provision of assistance with Media Release and other writing tasks courtesy of ARC Centre of Excellence for Synthetic Biology (CoESB)

NATIONAL SCIENCE WEEK GRANT

The National Science Quiz Steering Committee were the successful recipients of a \$20,000 National Science Week Grant to host this year's quiz.

National Science Week is Australia's major national celebration of the sciences, occurring in August each year. National Science Week provides the opportunity for community participation in high profile science engagement activities across the nation.

The objectives of the grant opportunity:

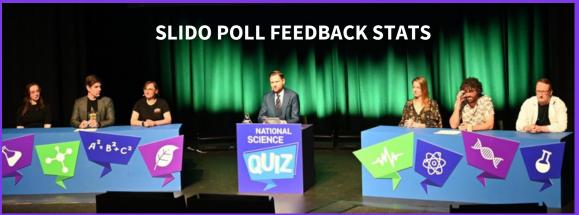
- inspire wide community participation in STEM.
- provide an opportunity to acknowledge and celebrate the contributions of Australian scientists to the world of knowledge.
- encourage an interest in science pursuits among the general public.
- encourage younger people to become fascinated by the world we live in.

The intended outcomes of the grant opportunity:

- increase national and international interest in Australian science.
- improve critical engagement with key scientific issues by the public.
- increase inspiration drawn from science and improve the value of science as perceived by the public.



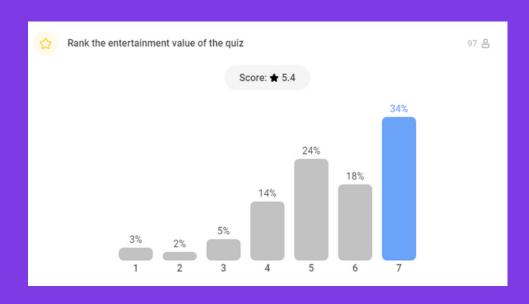




LIVE AUDIENCE

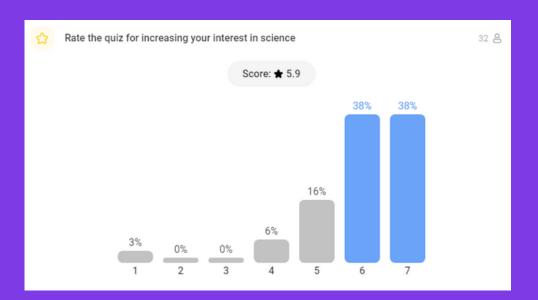
Rank the entertainment value of the quiz Score: ★ 5.7 38% 31% 31% 4 5 6 7

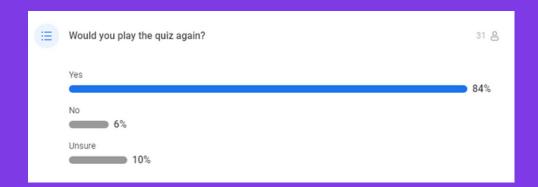
ONLINE



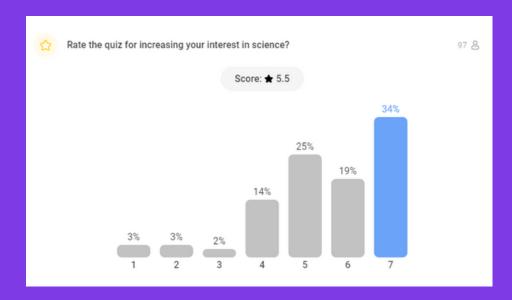


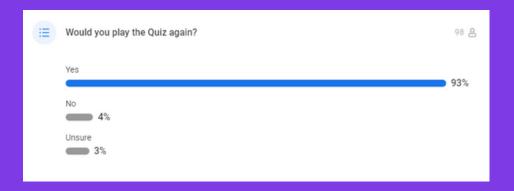
LIVE AUDIENCE





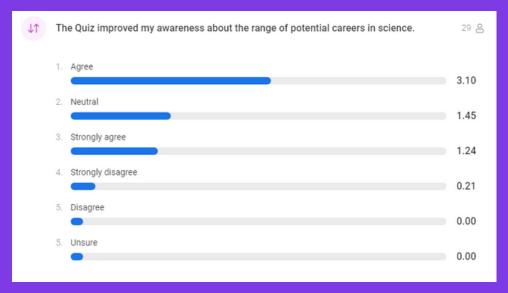
ONLINE

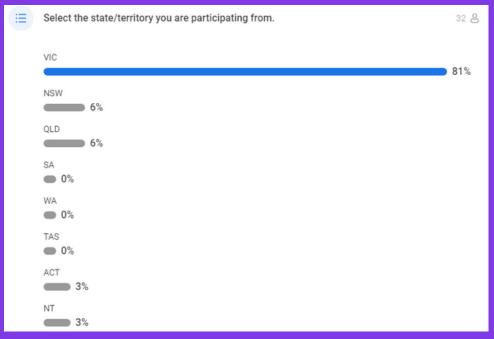




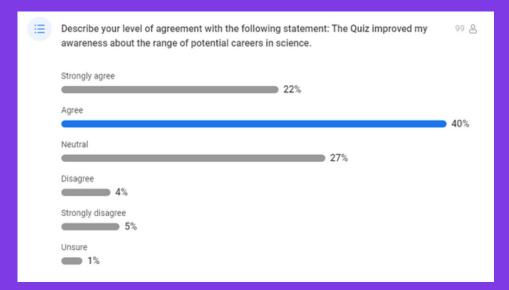


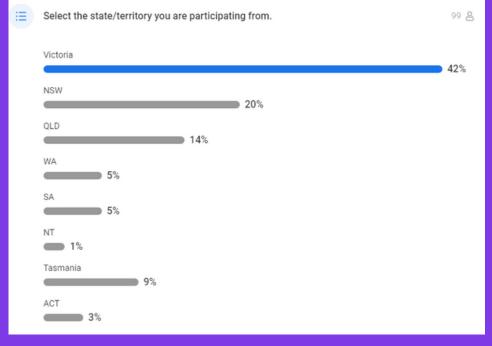
LIVE AUDIENCE





ONLINE







2023 PRIZE WINNERS

Congratulations to our National Science Quiz 2023 Champions!

\$500 \$250 \$1000

Live Audience	Online	Secondary School Teams
#1 – Guys Incognito #2 – Zofia #3 – Connor B #4 – Harriet #5 – Brasso	#1 – Georgii Khartcyzov #2 – Avie Pandey #3 – Lisa Ye #4 – Hanh&Pamodha #5 – John T	#1 – Schrödingers chicken fingers, Brisbane State High School #2 – A Brief History of Us, North Sydney Boys High School #3 – Silly Billies, McKinnon Secondary College #4 – Lucas and Jono, McKinnon Secondary College #5 – The Lab Rats, North Sydney Boys High School

^{*}All prize winners awarded a visa gift card prize, certificate and small trophy.

LIVE AUDIENCE POST QUIZ SURVEY

₩	How o	did you find the Quiz questions
	Open te	ext poll 🗹 78 responses 🕒 78 participants
	D/I	Mustard Perfect level of accessibility and challenge!
		Fim Chan Email
		Super Vees A bit hard
		A Brief History of Us They were quite good
	W	Walter As a physicist, the bubble question was slightly odd (the "correct" answer appears to stem from one of the "incorrect" answers). Otherwise pretty good: I like the Aboriginal and First Nations types of questions.
	W .	Wattle The questions were quite difficult and some answers were confusing. The questions didn't really showcase the knowledge of the teams on the stage
		Fishguts86 Challenging and fun.
		The Bean Team They appeared on my phone
	- н	Hermanos Diverse
		Dominik Kopp Good
	-	Ethan Qu nard

Varied, interesting, accessible, informative, and enjoyable

Space Dogs

- Ex Pats +1 Pat
 Double negatives were confusing esp in true or false questions. Some questions were
 too arbitrary (i.e. moon shape question and Europe warmer in summer is a hanging
 comparator. Warmer than what?!)
- Pachi's Angels
 Great range of topics discussed, but we felt like some questions lacked precision and were worded ambiguously. Also it would be great for there to be a timer on the questions especially because the livestream wasn't always perfectly synced from at home.
- CD Clan
 Some were badly worded. Especially the Wattle blossoming one, which does not indicate that meat is unsafe to eat, but rather that it will spoil. For the T/F questions, online participants had very very little time (<5 sec on some questions) before it locked us out of voting.
- Jay Jay Great mix. Very challenging.
- A shley
 I'm a biologist and already a scientist..was excited after last year abut disappointed the quiz was on in the middle of the afternoon (lots to do) rather than the evening. high and excluding emphasis on physics questions...broader range would be more inclusive. Also when masquerading as a game show it's very slow moving, different format or snappier on stage pre-prepared videos of science demos rather than uncomfortable on stage demos which interrupt the flow. Maybe presented by a scientist rather than a comedian, cos trying to be funny isn't working at the moment.
- S Sachin Joshi good
- S Scots All Saints
 Very interesting, even if I didn't know many answers. Definitely learned new things.
- Jem Barratt
 Mostly good but some were a bit misleading or wrong (using wattle flowers to determine whether meat was safe to eat? they could have just felt the hot weather)

LIVE AUDIENCE POST QUIZ SURVEY

Please add any other thoughts about your experience with the Quiz

Mustard

Just a few technical difficulties where the Slido wouldn't load and we'd miss out on a question. The livestream was delayed and the time limit on Slido was very short - so we would have to do and submit the questions before it was even read out in the livestream. The true/false questions in particular often closed before we even had a chance to finish reading the questions.

A Brief History of Us
The answering of the questions could be explained more. It could be stressed that
once you send you can change it and that if you have selected an option and didn't

- W Walter Way more slime is needed!
- W Wattle
 Questions could go more quickly

press send it will not count.

- Fishguts86 Fun and engaging
- The Bean Team
 The link between the questions and the demos performed by the lab assistants was pretty tenuous. I'd like to see the lab assistants perform so demos that explain the concept in the question.
- Dominik Kopp Slime was a bit poor. A but higher production value could have made the show better.
- Ex Pats +1 Pat
 Question voting timed us out without giving a time warning so we missed a few
 questions. Question timed out before host finished reading the question. This made it
 very hard to have a team playing together. Sometimes after I submitted an answer it
 said I didn't vote in time.
- P Pachi's Angels
 We wished there was more slime. Overall lots of fun!

- CD Clan
 The sliming was unnecessary and didn't add anything to the quiz or it's promotion of science content and careers.
- Jay Jay
 Can't believe I did so poorly. I'm a PhD student in Science. I did enjoy that I learnt a
 lot. Also enjoyed the indigenous science element.
- A Ashley see Q 8 above
- S Sachin Joshi good
- Jem Barratt
 Please add a question timer to the app. I missed submitting a bunch of answers I knew
- Blue Hoppers
 Uniform timing for questions and a countdown. We missed a lot of answers because it timed out. Allowing for remote lag.
- C Curious cosmonauts

 I thought that some questions where a bit too obscure.
- C Curious Cosmonauts
 Keep it the same because it is perfect
- Fission Ispossible
 Play it again if better. We had good company and a Reuben pizza so we had fun
 despite the quiz... More slime from higher up.
- Molly Porter
 It was annoying because at times i thought i submitted my answer but it didnt go through so i wouldve had some pore points but i didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt get them each of the some pore points but it didnt go the some points but it didnt go
- Curious Cosmonauts
 Should be easier to register school teams... was a little tricky to find information about how teams could play



ONLINE AUDIENCE POST QUIZ SURVEY

How	did you find the Quiz questions?
Open	text poll 🖸 19 responses 🔻 19 participants
J	Jason Groarke They were clever questions that made me use my prior knowledge to try and work out.
P	Priyanka Bute By my knowledge
S	Sue Ellis Really good. Loved the Indigenous inclusions and the Ig ones.
D	Danielle Dawe Good level of difficulty
Q	Quiztildas It was frustrating when the app closed voting too fast
M	Malcolm Yep Good variety. Had to use some science deductions
С	ClareM Interesting!
Н	Hirannya Rajapakse Good
S	Sirius Colege Students Interesting but fun!
В	Brian Kaddatz Awesome quiz questions, fantastic host, amazing panelists!
F	Farnaz Pirasteh Fine 😊
S	Scots All Saints They were reasonably difficult
Н	Hadi Khorshidi Interesting, some were not accurate.
E	Esther L I think they were an appropriate difficulty

Н	Harriet Fun and interesting.
T	Tom Fisher Interesting, challenging, satisfying.
Т	The Atomic destroyers Excellent range for all ages
R	Rose Casey Interesting
	se add anything else about your experience with the quiz text poll 8 responses 8 8 participants Priyanka Bute No
Q	Quiztildas Needed more slime 😂
Н	Hirannya Rajapakse It's a great program and try to run science programmes specially for scientific minded children.
J	Jordan barbetti Can you please list homeschooled.
В	Brian Kaddatz This is an awesome way to get the greater public exposed to science. Love it. Thanks to everyone involved.
F	Farnaz Pirasteh It was better to have a count down on question page so we would know when time to answer would end (I missed answering questions 2 times it was very fast) Also using a white board to write scores, so won't need to write scores everytime in new cardboard:)
E	Esther L It was great to be able to participate in person
Н	Harriet Needs more slime. More experiments.



FEEDBACK FROM PARTNERS & SPONSORS

Do you have any comments/suggestions or feedback about the quiz itself? (eg: Format?, Questions?, Venue?, Talent?)

Open text poll 2 5 responses 3 5 participants

- e Anonymous
 - To keep the Quiz 'fresh' for those who participate each year, we could look at changing up the panels to include both scientists and others in the community (these could be classified for example by age, profession, etc.)
- I think Nate should be the host he's level of enthusiasm is infectious; Charlie is more unknown to the audience intended. I think there is a bit of a miss match with the target audience and the marketing, it feels like the quiz is trying to be everything to everyone. I think that if you had a clear audience your marketing could be streamed

everyone. I think that if you had a clear audience your marketing could be streamed lined, and you can target well-known talent for that age group i.e. ABCs Ann Jones. Great venue! I don't think the sponsors needed to be on every question/slide. More slime!!!

Anonymous
The talent, questions and slido were great. The running of the show was great. A lot of people in the audience were disappointed with the slime given its dominance in advertising. - this was feedback on the night. The quiz is aimed at 12+ but some props and slime are for younger viewers, is this intentional?

- Anonymous
- I think we might have overcorrected from 2022 having slightly too easy questions: if anything the 2023 questions were on average a bit too difficult. However, the way we tweaked the program to highlight more of the thinking process and reasoning means that it worked better overall in 2023.
- Anonymous
 Ensure there is a cure for the common cold or whatever virus Charlie and Simon had. I
 liked the more seemed a more intimate character-laden venue and one with a snack
 bar was also good (saw a couple enjoying beers, others had choc tops, etc). Having
 said that Fed Sq. is also good (better light show), but there is always a compromise.

Do you have any comments/suggestions or feedback about being on the steering committee? (eg: meeting time/duration?, allocation/volume/equal sharing of tasks, skills you developed, professional development?)

Open text poll 5 responses 8 5 participants

Anonymous

If finance is available, it would be great to have professional marketing support to promote the Quiz.

Anonymous

The time committee required was a lot more than we anticipated, I strongly advise hiring a communications and marketing intern next time. most of the time spend was on marketing and coms.

Anonymous

Meetings There was not much clear air left in the meetings. For example, the question is asked and immediately the asker answers it themselves or just one person answers and then that's taken as the decision. It is hard on Zoom to speak up when others are speaking, so taking a beat after asking a question of the group allows others to input. Or just saying, "Does anyone else have an opinion?".

Otherwise, we learn to not bother giving input. Tasks The tasks were broken up into sets with a clear lead and a name allocated to each task, that was great. However, it was often someone else entirely or the lead jumping and doing them instead and then not communicating with the person assigned. Each lead needs to delegate properly, otherwise, you do not bother with your tasks because you assume someone else is doing it. Time It was a massive time commitment and added extra stress to an already stressful period. I am not sure we can commit again. Meeting times 9 a.m. meetings are not family-friendly. You did a great job overall though, These were just my bugbears. Next year there should be a WhatsApp group for the committee for snappy decision-making and responses.

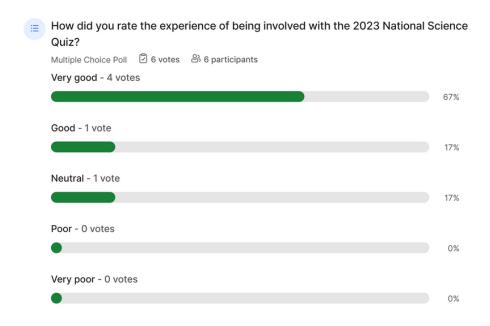
Anonymous
It was fantastic!

Anonymous

About right. It will get slicker again next year. Right amount of trust in committee members to get the job done and oversight to check in and keep things on track (for me personally anyway).

slido

FEEDBACK FROM PARTNERS & SPONSORS



Are you likely to be involved in the running of next year's quiz?

Multiple Choice Poll 6 votes 6 participants

Yes (same sponsorship level) - 2 votes

33%

Yes (different sponsorship level) - 0 votes

No - 3 votes

50%

Unsure at this stage - 1 vote

If the Quiz is commissioned by ABC-TV – would your centre or organisation like to be approached to provide scientific input (question suggestions and checking of scientific facts) to the production team?



Any other comments you would like to provide?

Open text poll 2 4 responses 3 4 participants

- Anonymous
 Congrats Emma and Eloise on your fantastic contributions to the Quiz in 2022 and 2023. There has been a step change in the quality and professionalism of the Quiz. Very well led. Thank you.
- Anonymous
 It's a great event, I see is growing every year. I have a few suggestions to get more schools involved next year. First thing is notice Sem 2 starts to be planned after
 Easter, so you need your 1st coms to go out then. Even a heads up at the start of the year would be good. Run the event on Friday afternoon (1.30-3pm), invite schools to attend (of course general public can come too, you could leave some tickets just for general public). You could charge a small free for student tickets (\$5) and allocate like 5 tickets for each school in Victoria. You could also allocate say \$10,000 of the budget remote schools to apply for grants to attend the event. Also, if you run it during school hours many schools can watch a play along. Maybe even some of the attendees can ask their question in real life!
- Anonymous
 It went off really well and you should pat yourself on the back for all the hard work
 and patience you put in. Please take my criticisms are constructive. You really did a
 great job.
- re: above two questions. FLEET ends this year, hence the no to being involved next year. If I am in an appropriate organisation next year (ie I have found a similar job in a similar org.) then yes to the approach.

slido



2024 MARKETING SUGGESTIONS

- **Date** select a date as early as possible and update the website and header tiles with this date.
- Our audience Be clear on who our target audience is and think about how to market the quiz effectively to each category (High Schools/Teachers, General Public/Families, Science community/University).
- **Spreadsheet maintenance** Enza at Let's Talk Admin has offered to go through our schools contact spreadsheet and complete data cleansing to ascertain the correct email addresses. In this case, due to the teacher's movements throughout the education system, it would probably not be wise to note the teacher's name as the main point of contact.
- Emailing Contacts Suggest continuing to use Mailchimp. Let's Talk
 Admin can create and send the emails, take notes if emails bounce
 back, and check if the email has been opened. Sending via the NSQ
 website is not ideal and is hard to track who has viewed etc..
- Follow-ups –following up on schools is also available through Let's Talk Admin. The script already provided to them can be utilised in consecutive years.
- Marketing Assets Start early creating these. A NSQ Canva Pro
 Account is now available to take over fully loaded with NSQ
 resources and all content assets used in 2022/2023 eg: Charlie's
 Cards, Tech rundown, Marketing Files, New Logo's, T-Shirt design,
 Trophies, Social media tiles etc..
- You-Tube Mini Quiz resources include these in our marketing efforts to teachers to develop a taste and awareness for the quiz early on.

2024 SOCIAL MEDIA SUGGESTIONS

- **Who?** A clearer or more defined target audience will also help with our voice and choosing the platform we communicate with.
- Plan early NSQ social accounts are dormant most of the year so ideally need a clear plan early and to start posting a few months prior. Increase content heavily in the 1 month prior to quiz with sponsored ads, reels, posts and stories.
- **Help** Potentially look at hiring a media intern they may also be able to assist with emailing and phone calls to schools. This is a large job for a committee member to take on.
- **Video Content** Develop more video content ideally need about 30 reels (1 x for each day in month prior) and they can be used on Tiktok / Youtube as well.
- **Social Assets** the more social tiles the better as it is best not to reuse content as it can effect the algorithm. Ideally a months worth of posts plus a few extra so we can post 3 x a day in the week leading up to quiz.
- **Slido poll** consider social tiles or video to better explain how the joining the poll works? Particpants like to feel they understand how to play prior to the event especially as it is competitive.



FINAL BUDGET

EXPENSES		INCOME	
Venue - Capitol	\$5,575.00	COE Plant Success	\$11,000.00
AV & Livesteam (AusStage)	\$26,065.88	Matrix / Optima / ADSN (Legacy Funding)	\$12,000.00
Pre/post production (James Rafferty)	\$7,700.00	COE FLEET	\$2,000.00
Post-production editing (Mini-quiz resources)	\$700.00	COE EQUS	\$5,000.00
SLIDO subscription	\$1,300.00	COE Exciton Science	\$2,000.00
Webpage (Panthur)	\$29.90	COE Oz GRAV	\$5,000.00
Talent- Charlie Pickering	\$11,300.00	ARC Centre of Excellence for Climate	\$2,000.00
Talent- Nate Byrne	\$1,100.00	Extremes	
Talent- Simon Pampena	\$1,100.00	CSIRO	\$5,000.00
Make-up & Hair	\$550.00	ARC Centre of Excellence in Synthetic	\$5,000.00
Panellist gifts	\$100.70	Biology	
Catering	\$1,991.00	Melbourne Centre for Data Science	\$5,000.00
Props OPTIMA	\$378.55	ARC COE Plants for Space	\$2,000.00
Props Plant Success	\$83.67	Tickets (Humanatix \$1,433.60/ Half Tix \$12)	\$1,445.60
Props other	\$149.90	National Science Week Grant	\$20,000.00
Printing	\$385.00		\$76,000.00
Trophies	\$722.70		,
Prizes	\$2,350.00		
T-shirts	\$913.00		
Postage	\$18.60		
MOO Marketing Plan, Website & Resources	\$6,050.00	TOTAL INCOME	\$76,000.00
Lets Talk - Virtual Assistant	\$1,259.00	TOTAL EXPENSES	\$73,349.32
Social media Meta Advertising	\$797.07	PROFIT	\$2650.68
Mailchimp	\$69.35		
Melbourne Weekend Notes Advertising	\$310.00		
70 x Posters CBD	\$2,200.00		
Hotel room for makeup and shower	\$150.00		
	\$73,349.32		



WITH THANKS TO...

All our Partners & Sponsors for their support and generous in-kind contributions to contribute to hosting the 2023 National Science Quiz.

Mr Charlie Pickering our wonderful host of the quiz since 2016.

Our on-stage talent and scientific guest panellists with special thanks to our **Guest Team Captains Nate Byrne and Simon Pampena**.

The Australian Research Council (ARC) for the ongoing support and facilitation of our Australian Centre's of Excellence.

The Australian Research council helps shape the Australian research system for the benefit of the nation by enabling world-leading research, fostering research quality, translation and impact, and safeguarding research integrity.

National Science Week Grant Program for selecting our event as successful recipients of a \$20,000 grant for 2023 National Science Week.

Assoc. Prof. Eloise Foo for her excellent work on the submission of our National Science Week Grant application and securing funding for this event to go ahead.

All the behind the scenes helpers.... in all of our partner and sponsor organisations - from financial reporting through to backstage support. Thank-you!



























