

Registration – Icebreaker bingo

Welcome to Big Ideas Day – Defining our path to a flourishing future

Join a passionate group of geoscience educators and collaborators for a highly interactive session focused on **shaping the future of geoscience education**.

Using the **appreciative inquiry SOAR framework**, participants will collectively explore what is already working well, identify opportunities to build momentum, articulate shared aspirations, and define meaningful outcomes for geoscience education.

Setting the Scene

Sandra Villacorta will present insights from the **IUGS-COGE White Paper on Geoscience Education**, which explores global challenges, strategic priorities, and pathways for action shaping the future of geoscience education.

This presentation will provide a broader context for the day—highlighting key trends, systemic challenges, and emerging opportunities at an international level. It will help frame our thinking as we move into the SOAR activities, ensuring our discussions are aligned with both **global perspectives and future workforce needs**.

Strengths – What is already working well?

Explore the breadth of successful initiatives across geoscience education and reflect on how we know they are working, what supports their success, and what makes them distinctive.

Activity Overview

This session is designed to identify, refine, and strengthen effective geoscience education strategies through a structured, collaborative process.

- Participants will begin by individually brainstorming ideas. These ideas are then grouped across key education categories (e.g. primary, secondary, tertiary; outreach, incursion, excursion) to identify common themes and consolidate similar initiatives.
- Working in small “expert groups,” participants will explore selected ideas in more depth—defining the strategy, identifying evidence of what works, and outlining the key enablers required for success (such as resources, expertise, and partnerships). Each group will also clarify how the initiative operates and what makes it unique.
- A “stay and stray” approach will then be used to promote cross-group learning and refinement, allowing participants to build on each other’s ideas and strengthen outputs through shared insights.

Opportunities – What can we do more of?

Identify where existing strengths can be amplified through stronger connections, greater impact, and the scaling of effective practices.

Activity Overview

This session builds on your strengths mapping by shifting focus to identifying opportunities to expand, connect, and enhance what is already working in geoscience education.

- Participants will explore key questions to identify where existing initiatives can be scaled or better integrated, where gaps or duplication exist, and how collaboration across schools, universities, industry, and communities can be strengthened.
- The session will also consider what is required for initiatives to thrive long term and how impact can be more effectively demonstrated and shared.
- Working from your existing mind map, groups will capture and refine these opportunities before presenting their key insights back to the broader group.

Aspirations – What do we want to achieve?

Articulate a shared vision for an inclusive, connected, and future-focused geoscience education ecosystem that equips learners with relevant skills, inspires curiosity, and demonstrates real-world value.

Activity Overview

This session focuses on defining a shared vision for the future of geoscience education and identifying the key actions required to achieve it.

- Participants will engage in a **roaming brainstorm**, working around the room to respond to a series of guiding questions that explore what outstanding geoscience education should look like in 5–10 years. This includes defining the capabilities, experiences, and mindsets we want learners and educators to develop, how geoscience education should be perceived, and the values that should underpin the system.
- Groups will then synthesise these insights into common themes, helping to articulate a clear set of aspirations. From this, participants will identify the most critical opportunities required to achieve this future state.
- A set of proposed pillars of success will be presented, with participants voting to prioritise the top four. These priority areas will be further refined, linking back to identified strengths, opportunities, and aspirations to ensure alignment and impact.

Results – How will we know we are succeeding?

Define clear, shared outcomes that reflect improved engagement, capability development, meaningful pathways into geoscience careers, and a resilient education community committed to continuous learning and improvement.

Activity Overview

This session focuses on defining how we will measure success and ensure our work delivers meaningful, lasting impact.

- Building on the four priority pillars, participants will work together to identify clear, shared outcomes that reflect success in geoscience education—such as improved student engagement, strong capability development, meaningful career pathways, and a resilient, continuously improving education community.
- Using a set of guiding questions, groups will explore what meaningful improvement looks like in practice, identify key indicators of success, and consider how to measure both short-term progress and long-term value. The session will also focus on defining what evidence will demonstrate impact, and how insights can be shared to enable continuous learning and improvement.
- Outputs from this activity will provide a practical framework to track progress, demonstrate value, and sustain momentum beyond the session.

Join Katrina Rees and Suzy Urbaniak for a highly interactive day of appreciative inquiry into geoscience education.

Presenter Bio – Katrina Rees

Katrina Rees is a Principal Structural Geologist based in Perth, Western Australia, with extensive experience across the mining and resources sector. She has led structural geology and resource characterisation initiatives across multiple operations, focusing on improving geological confidence, operational efficiency, and decision quality.

Katrina also brings a unique perspective through her background in education, having taught geoscience and contributed to the delivery of hands-on learning programs. This experience underpins her strong passion for bridging the gap between education and industry, and ensuring geoscience is taught in a way that is practical, engaging, and aligned to real-world application.

She has played a key role in capability development within BHP, including leading the design and implementation of skills frameworks to support workforce development. Katrina is also actively involved in mentoring graduates and interns, and contributes to broader education initiatives such as CoRE Learning Foundation programs, school outreach, and industry engagement activities.

Through her work, Katrina is committed to strengthening the future geoscience workforce by connecting education, capability development, and industry needs.

Presenter Bio – Suzy Urbaniak OAM

Suzy Urbaniak OAM is an award-winning geoscience educator and industry advocate who has dedicated her career to transforming how young people engage with science, technology, and the resources sector. Beginning her career as a geologist in the mining industry, she later transitioned into education, bringing real-world experience into the classroom to make science more engaging, relevant, and career-connected.

Suzy is the CoRE Lead and co-founder of the CoRE Learning Foundation, a not-for-profit organisation focused on delivering hands-on, industry-connected STEM education. Through the CoRE (Centre of Resources Excellence) Learning Model, she has pioneered a highly practical, inquiry-based approach that connects students with real-world challenges, career pathways, and industry insights.

Her work has had significant impact across schools and communities, strengthening the pipeline of future geoscientists, engineers, and STEM professionals. Suzy's contributions have been widely recognised, including the Prime Minister's Prize for Excellence in Science Teaching and the Medal of the Order of Australia (OAM) for her services to science education.

A passionate advocate for collaboration between education and industry, Suzy continues to champion innovative, experiential learning approaches that inspire curiosity, build capability, and prepare young people for future workforce opportunities.