Tritech Tri-Think 2027 Competition

Tritech is moving with the times! The format of the competition is changing in 2027. Introducing the Tritech Tri-Think Competition!

1. **The Aim of Tritech still is to empower learners to:**

• Solve real-world problems using the Scientific method, address critical community needs, and improve lives using technology

• Cultivate a responsibility by evaluate the direct impact of their work on ecosystems and communities.

• Communicate complex datasets fluently and defend their findings confidently in public forums and expert panels.

• Create platforms where talented learners can showcase their skills, have fun, and connect directly with recruitment and scholarship pipelines from universities and industries.

2. Core Mission & Strategic Reset

The **Tritech Tri-Think 2027 initiative** represents a foundational redesign of the Tritech project-based science competitions. In recent years, unguided science projects have faced massive challenges: a drop in critical thinking, uncritical copy-pasting of AI outputs, superficial data collection, and a complete lack of experimental depth. Concurrently, state school participation has faded due to a watered-down practical curriculum, while private high schools face critical time constraints.

To reverse these trends, Tritech Tri-Think is moving away from solo, unguided projects. Instead, it introduces a structured, **team-based science competition (4 learners per team).** Material is prepared by the Tritech team and coached by teachers. Training material will break down the scientific method into manageable, progressive milestones that can be integrated directly into the school's practical curriculum or science clubs. Tritech Tri-Think makes scientific discovery structured, collaborative and scalable.THE FOUR-STAGE PROGRESSION

Level 1	**Level 2**	**Level 3**	**Level 4**
Learning	Club competition	Virtual round	Best of the Best
School	School	Online	Venue TBA
February-June	Term 3	TBA	TBA (term 3/4)

3. **Competition Logistics**

- **Target Cohorts:** Junior Division (Grades 6–9) and Senior Division (Grades 10–12).
- **Curriculum Alignment:** Early phases are tightly aligned with CAPS Process Skills and IEB Physical Science Subject Assessment Guidelines (SAGs) to ensure smooth integration into formal school schedules or Science clubs.
- **Team Composition:** Standardized blocks of 4 learners per team, each fulfilling a mandatory operational role: Principal Investigator, Laboratory Technician, Data Analyst, or Scientific Communicator.

4. Operational Plan (Programme & Annual Timeline)

- **Phase 1: Learning Round (February – June 2027)**
    - **Structure:** 10 hours of instruction split into weekly sessions (1-hour or 30-minute variants). Delivered via pre-recorded videos to allow flexible implementation.
    - **Scope:** Curricular integration for teachers and skills-building for learners.
- **Phase 2: School Round (Early in Term 3)**
    - **Structure:** Practical evaluation run directly on-site at the school
    - **Scope:** Teams tackle a standardized challenge using readily available items. The teacher grades practical, project report and video presentation to select teams.
- **Phase 3: Virtual Round (TBA, with Sept as a target date)**
    - **Structure:** A high-pressure, fully online live assessment lasting 3 to 4 hours via Google Workspace apps.
    - **Scope:** Teams complete a rapid-fire live experiment on camera using readily available materials.
- **Phase 4: Best of the Best Final Round (**Date and venue to be confirmed**)**
    - **Structure:** An intensive, in-person weekend challenge at a Venue
    - **Scope:** Problem statement issued Friday morning; experimental work occurs Friday during the day and evening; oral presentation and final award ceremonies conclude on Saturday.

5. Syllabus Alignment & Skills Progression Matrix

The first half of the year alternates core science content with CAPS/IEB process skills. Junior and Senior clubs use matching themes to simplify facilitation, but the difficulty scales are based on age category.

3-YEAR CORE CONCEPT ROTATION

The following concepts are being considered for integration into the **Learning Round:**

Physical Science	**Life and Earth and Data Science**
Density, Buoyancy & Archimedes	Cells & Microorganisms
Forces, Motion, Vectors & Direction	DNA & Genetics
Basic Electricity & Electrostatics	Applied Math & Digital Logic
Light, Waves & Sound Properties	Algorithms & Scratch Coding
Mixtures, Atoms & Phase Changes	Illusions vs. Measurement

6. Registration of schools

Please fill in the form linked below to sign up for Phase 1 (Learning Round) and Phase 2 (School Round) for 2027. **There are no financial commitments required for signing up now.** All schools are welcome to access the learning material once it is made available, free of charge, and to run the School Round at their own venues on the correct date(s) in 2027.

Details regarding participation in Phase 3 (Virtual Round) will be made available closer to the time.

https://forms.gle/AVu6AdBNrDbmn4c86