

Administration of Integrated Project and assessment of 21st Century skills in the classroom

GEC MASTER TRAINERS

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Introduction

PURPOSE:

To share my school's practical experience, processes, and lessons learned in the successful implementation of the GEC Integrated Project and the assessment of 21st Century skills during the 2025 academic year.

AIMS:

- ❖ Provide a clear overview of my school's context and the model we adopted for administering the Integrated Project in my subject.
- ❖ Detail the step-by-step procedures followed for the administration of the Integrated Project, the assessment of 21st Century skills, and the curriculum tests.
- ❖ Highlight the challenges encountered and the mitigation strategies we applied.
- ❖ Share what worked well, what needed improvement, and recommendations for strengthening GEC implementation in 2026.

School Information

Name of the School	MAFIKENG HIGH SCHOOL
Province and District	NORTH WEST PROVINCE
School Type	MAINSTREAM
Subject	MATHEMATICS, NATURAL SCIENCE AND TECHNOLOGY
Total number of grade 9 classes	4 Classes 1 Class = LOLT Afrikaans 3 Class = LOLT English
Number of learners per class	9A = 20 9E1 = 57 9E2 = 58 9E3 = 57
Total number of teachers	32
GEC Participation	2021



Observation of 21st Century Skills



Procedure followed by the School

At Mafikeng High School, we adopted a structured, worksheet-based integrated model for Project 2, which combined Mathematics, Natural Sciences, and Technology.

The project was implemented over **8 weeks** in Term 3. It followed a progressive weekly schedule which was provided to both learners and Educators.

Key features of the model:

- Worksheets were distributed weekly according to the GEC Term Plan.
- Teachers from Mathematics, Natural Sciences, and Technology collaborated to ensure the worksheets built on one another.
- The approach was **continuous and classroom-based**, with learners working under teacher guidance, allowing for scaffolding, group discussions, and practical tasks where relevant.

Procedure followed by the School

We adopted a continuous, embedded observation model for the assessment of 21st Century skills. This process was carried out during the administration of the Integrated Project 2 (not as a separate activity).

Educators in the MST subjects (Mathematics, Natural Sciences and Technology) were each provided with a class list containing all learners' names. On this class list, the relevant 21st Century skills were clearly listed with a brief description of what each skill looked like in practice

Because the project was delivered through a weekly worksheet system, the observation process was fully integrated into normal classroom teaching:

- Every time a teacher received a worksheet for their subject, they **also received the corresponding observation class list** for that week.
- The teacher was expected to observe the targeted 21st Century skills (Critical Thinking, Communication, and Metacognition) while learners worked on the worksheet activities during the entire week.

Step by step Procedure

Step	Procedure
Training of educators	on the GEC Integrated Project requirements, the weekly worksheet system, 21st Century skills observation tool, and rubric completion. (especially those new to the school)
Parental involvement	Inform parents about the purpose, timeline, and expectations of Project 2 through a dedicated parent information session and written communication.
Inform learners	about the project, its integrated nature, assessment criteria (content + 21st Century skills), and the weekly worksheet approach.
Management plan	Develop detailed management plan with clear weekly goals, timelines, responsible persons, and built-in flexibility for adjustments.

Step by step Procedure

Step	Procedure
Create a monitoring plan	for the SMT and GEC Coordinator to track implementation, marking, feedback, and moderation throughout the 8-week period
Implement the management plan	by releasing the worksheets week by week according to the Term Plan (Weeks 2–8), ensuring smooth progression across Mathematics, Natural Sciences, and Technology.
GEC Coordinator's classroom as the central hub	where all completed worksheets were stored in individual learner files and where all inclination class lists were safely kept.
Track Educator Implementation	SMT and GEC Coordinator used the management plan to track marking, feedback, and moderation on an ongoing basis.

Step by step Procedure

Step	Procedure
Rubrics	Were filled in at the end of the Integrated Project. A schedule was created giving subject educators a dedicated day to complete their rubrics. Where a mark from another subject was required, it was already indicated on the worksheet by the relevant teacher and then transferred to the appropriate rubrics.

Additional

The single most important factor that enabled the successful implementation of **Project 2** was **strong collaboration and communication**.

We treated our educators as the **key ambassadors** of the GEC Integrated Project.

Once the educators were fully on board through

- ✓ clear training,
- ✓ shared ownership of the weekly worksheets,
- ✓ and continuous support

Additional

Everything else fell into place:

- ✓ Parents quickly bought into the project because the School and its Educators communicated its purpose and value with confidence and enthusiasm.
- ✓ Learners fully bought into the project because their Educators believed in it and modelled the 21st Century skills themselves.

This educator-driven collaboration created buy-in at every level and turned the Integrated Project into a smooth, meaningful experience rather than an added burden.

GEC Implementation



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Administration of Inclination

The Grade 9 GEC Inclination Test was successfully administered at our school through a well-coordinated process.

- ✓ Parents were informed about the test and its purpose during the Grade 9 GEC parents' meeting.
 - The rationale behind the test : to help identify learners' strengths and weaknesses and to provide guidance on possible career paths

To ensure all parents were reached, additional communication was sent through the school's official communication channels.

- ✓ A dedicated day was scheduled for the test, during which learners were requested to bring their cellphones to school. The test was conducted under teacher supervision in class.
- ✓ For learners without access to a cellphone, clear instructions were sent to their parents on how to complete the test at home.

Administration of Inclination/ continue...

- ✓ Learners and parents were then required to forward the test results to a dedicated email address created specifically for the GEC Inclination Tests.
- ✓ Many learners also willingly shared their devices with classmates to ensure everyone could participate.
- ✓ Upon completion, each learner's inclination test results were printed, filed, and properly recorded for future reference and academic/career guidance.

Administration of Inclination

Challenges	Mitigation Strategies
Learner comprehension: Grade 9 learners sometimes struggled to understand certain words in the questions (e.g. “Solve Complex Problems”, “Understand Technical Systems”)	Questions should be made more elaborate or use simpler, clearer terms
Honest engagement: Learners felt under pressure to answer in the same way as their peers or in a way that would please their parents	Provide learners with a safe, non-judgemental environment so that their answers can be genuine and honest

Administration of Inclination

Challenges	Mitigation Strategies
Time constraints within the school timetable: The period length was not long enough for educators to assist all individual learners who had difficulties understanding or answering the questions	Dedicate sufficient time on the day of the inclinations test to allow all learners to complete the assessment comfortably

Administration of integrated project

Process	Procedure
Writing	Learners completed the worksheets progressively in class under the guidance of their subject teachers. Activities were done during normal lesson time, allowing for scaffolding, group discussions and practical tasks where required.
Booklets	The project booklet was not printed all at once. Worksheets were printed weekly according to the management plan and issued to learners every Monday. This kept the project manageable and prevented learners from feeling overwhelmed by a large document.
Marking	Each set of worksheets was allocated one full week for completion. Educators marked the worksheets and provided feedback during that same week. All completed worksheets were returned to the GEC Coordinator by Friday for central filing and moderation.

Administration of integrated project

Benefits of this method

For educators

- ✓ Workload was spread evenly across the term
- ✓ Avoiding a heavy marking burden at the end.
- ✓ Teachers still had sufficient time to cover the normal ATP on non-GEC days.

For learners:

- ✓ They received the work as manageable weekly Worksheets instead of one massive 48-page booklet, which reduced anxiety and improved engagement.

This weekly, phased approach ensured smooth implementation, timely feedback, and effective integration of content across the three subjects.



Administration of the integrated Project

Challenges	Mitigation Strategies
Learner Absenteeism	Use of extended periods after school to catch up missed work
Educator Absenteeism	Use of extended periods after school and support from colleagues Redistribution of tasks and use of structured plans to ensure continuity
Life Orientation Period Allocation (2 hours per Week according to CAPS)	Use of assembly time on Mondays for subjects that required extra time
Delayed Marking Processes	Strict weekly deadlines and monitoring by SMT and GEC Coordinator
Delayed Feedback	



Assessment of the 21st century

Conducted during the administration of the Integrated Project (not as a separate activity).

Process	Procedure
Model adopted	Educators were provided with a class list for the learners they taught. The class list clearly showed the specific 21st Century skills to be observed with short descriptions of each skill.
Observation	Every time educators received a new set of worksheets for the week, they also received the corresponding observation class list . While learners worked on the worksheets during normal lesson time, the teacher observed the learners in action and marked “Observed” on the class list when evidence of a skill was seen.
Recording	The completed class lists were returned to the GEC Coordinator every Friday together with the marked worksheets for central monitoring and moderation.

Assessment of the 21st century

Key point: Observation took place **throughout the entire 8-week Integrated Project**. Some skills were not visible at the start of the project, but learners often displayed them later once they became more comfortable with the tasks and concepts.

How we managed both content delivery and skills assessment in the classroom

Teachers followed these clear instructions:

- First guide learners to ensure they fully understand the content of the worksheet.
- Manage the class effectively (whether working individually or in groups).
- While learners are working, the teacher's role is to:
 - **Observe** whether learners are displaying the targeted 21st Century skills.
 - **Assist** learners where needed (helping them seek clarity is itself a valuable skill).
 - Maintain classroom discipline that supports positive teaching and learning.



Assessment of the 21st century

Challenges

Concession Learners: Educators had limits due to the specific recommendations and accommodations given to concession learners

Large Class Sizes: Made it difficult to observe every learner every day

Classroom Management and discipline: New educators struggled with class management and discipline and therefore could not effectively observe skills

Mitigation Strategies

Educators were given clear guidelines on how to observe and record 21st Century skills for concession learners without violating their accommodation plans. Where possible, peer support and targeted one-on-one check-ins were used.

Educators rotated their focus across different learners each week.

New educators received additional mentoring and classroom management training before the project started. They were paired with experienced MST teachers for support during the first few weeks, and SMT provided classroom visits to assist where needed.

Administration of the curriculum test

Process	Procedure
Model adopted	Centralised distribution + multi-venue invigilation model ✓ Grade 9 learners wrote in 5 separate venues (40 learners per venue). ✓ A central distribution venue was used where the GEC Coordinator unpacked, counted and packed scripts before delivery to each venue. ✓ Strict start times (reading at 08:45, writing at 09:00) and full-duration seating were enforced.
Moderation Model	Internal school-based moderation ✓ After collection, all scripts were returned to the GEC Coordinator's classroom (central hub). ✓ Subject Educators conducted are using the official memorandum to ensure marking consistency and fairness. ✓ Subject Educators handed full batch of scripts to respective DH's for internal school-based moderation



Administration of the Curriculum Tests

Challenges	Mitigation Strategies
Learner absenteeism on test days	✓ Parents were informed in advance of the importance of full attendance
Handling concession learners across multiple venues	✓ Concession learners were seated in designated front rows if they had extra time; ✓ Concession learners who required a reader were placed in individual venues

Administration of the Curriculum Tests

Challenges

Learners rushing to finish tasks or completing worksheets within 30 minutes, often without fully engaging with the questions.

Mitigation Strategies

- ✓ Learners were required to remain seated for the full assessment duration to discourage rushing.
- ✓ Learners who finished early and disengaged (e.g. sleeping) were identified and monitored.
- ✓ Parents were informed about learners who consistently rushed or showed low engagement.
- ✓ Learners were warned about the impact of rushing on performance and skill development.
- ✓ Additional emphasis was placed on encouraging careful reading and full completion of all questions.

Recommendations for GEC



Additional Information

Key Challenges in 2025

- **Large class sizes** (20, 57, 58, 57) limited effective facilitation, individual support, and monitoring of learners.
- **Limited Life Orientation periods**, despite it being the anchor subject for Project 1, constrained adequate coverage and integration of project activities.
- **Centralised coordination**, with one GEC coordinator managing both projects, reduced capacity for consistent monitoring and educator support.

Additional Information

Improvements for 2026

- **Better class distribution** across 6 Grade 9 classes (17, 35, 31, 31, 31, 31), allowing for improved learner engagement and support.
- **Increased Life Orientation time allocation** on the timetable to strengthen its role as the anchor subject and ensure smoother project implementation.
- **Introduction of project managers** (one per project) to enhance monitoring processes and provide targeted support to educators, particularly those new to GEC.

Additional Information

Key Points for Successful Implementation

- **Maintain normal school routines** – integrate the GEC into existing structures.
- **Fit the GEC into the school context** – avoid disrupting Term 3 programmes.
- **Build on established routines** – do not introduce entirely new systems alongside the project.
- **Ensure stakeholder buy-in** – actively involve educators, learners, and parents.

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