

**Deira Private School
School Action Plan 2023-24
National Agenda SCIENCE**

STUDENTS' ACHIEVEMENT (PS1) (1.1 and 1.2 Attainment & Progress)

To raise attainment and Progress in Science across all phases

Problem (Why?)	Intervention Description (What?)	Implementation Activities (How?)	Implementation Outcomes (How well?)	Final Outcomes (And so?)	Lead (Who will do?)
<p>To raise science attainment in NAP assessment across the school- NAP, PTS, CAT4, TIMSS, PISA to exceed the targets set for the school.</p> <p>To ensure DePS is a high performing school in the UAE, compared to the other best schools in the world.</p> <p>To maintain acceptable attainment and continue upward trends in attainment and progress.</p>	<p>-To systematically evaluate all NAP assessments data and its effective use in personalization of Teaching and Learning strategies to maximise student progress.</p> <p>- To analyse the correlation between CAT4, GL Progress Test, NGRT and school internal assessments through triangulation which should lead to appropriate intervention for all group of learners.</p> <p>- Continue to embed of critical thinking, analytical and graphical skills through TIMSS, PISA and SAT style questions in lessons.</p> <p>- Further Embed Scientific Skill through scientific enquiry and</p>	<ol style="list-style-type: none"> 1. Whole school teaching staff training, on how to use external benchmark results to inform planning. 2. Departmental teachers training in analysing the internal and external assessment results to identify the gaps. 3. Regular meeting with school leaders to share best practices and expertise to ensure all team awareness levels are secured. 4. Improvement in Scientific thinking and skills seen in internal assessments and in PTS. 	<p>Short term (By Dec 2023)</p> <p>Almost all staff use PT style, TIMSS style and PISA style questions in their Science lessons (Oct 2023)</p> <p>Teachers show better understanding of data and use the analysis in their lesson transactions.</p> <p>-Most students can confidently use keys to independently classify and derive information; large majority of students can create keys independently from real life scenarios.</p> <p>Medium term (by March 2024)</p>	<p>Improvement in students' attainment in Science to outstanding</p> <p>Increased levels of progress across all subjects and for all groups of students</p> <p>Teachers make effective use of assessment information to meet learners' need for better achievement.</p> <p>Students consistently make meaningful connections between areas of learning and use these to deepen their understanding of concepts, and demonstrate success in applying their skills to problems in real life</p>	<p>Head of Science , Science Planners and Science teachers Teachers</p>

<p>Progress Test in Science (PTS)</p> <p>To further minimise the gap identified in PTS 2021-22 and accelerate the performance in content and process categories.</p> <p>Gaps identified</p> <p>Year 3 Process Category: Chemistry-Fossils</p> <p>Application of knowledge and understanding</p> <p>Year 4 Process category Biology-Animals and its habitat Application of Knowledge and Understanding</p> <p>Year 5 Process Category: Physics and working scientifically-Application of knowledge and understanding</p> <p>YEAR 6</p> <p>Item Gaps identified in</p>	<p>investigation in lessons across all phases.</p> <ul style="list-style-type: none"> - To share analysis and reports with all stakeholders. (Parents, Students, Governors) - To support teachers and students and to develop personalised strategies. <p>Analysis and triangulation of internal and external assessment information in all year groups to identify gaps</p> <p>Use of external benchmark (CAT4, PTE) data to inform planning and implementation to maximise potential.</p> <p>Focused support and intervention to target students to raise their attainment</p> <p>In lessons: Provision in lesson plan through starter/ mid-plenary/ plenary to enhance students' understanding and reasoning:</p> <ul style="list-style-type: none"> • Starter – Concept cartoon to provide question based enquiry Mid plenary/ plenary – TIMSS style questions to gauge progress <p>Challenging students to create</p>	<p>5. Provide opportunities to stretch and develop their understanding through planning, open activities like plan their own experiment to investigate questions/opportunities to change question for example 'what if' scenario across primary.</p> <p>6.To improve quality of Teaching and Learning (3.1) and assessments (3.2)</p> <p>7. Improve the consistency of how well teacher teaches.</p> <p>8.To enhance culture of self reflection and development throughout the school at all levels through reflection by student, teachers, middle leaders, sessions led by SLT,MLT and other identified outstanding practitioners.</p> <p>Establish assessment checking cycle including Teachers, M.L.T & S.L.T to check if gaps are reinforced and secured.</p> <p><u>QUALITY OF TEACHING AND ASSESSMENT (PS3)</u></p> <p>Outstanding teachers (identified in various aspects such as investigations, effective questioning, effective research</p>	<ul style="list-style-type: none"> · Teaching staff are using accurate data to inform planning. (Mid-Jan 2024) · Most of the teachers can use assessment data in lessons and adjust and adapt teaching and learning effectively. (End of Jan 2024) <p>Long Term (By May/June 2024)</p> <ul style="list-style-type: none"> · Almost all teachers can use assessment data effectively in lesson planning (April 2024) · There is no judgmental gap between internal and external examination data. (June 2024) <p>Most students will be able to Comprehend an analyse text and answer questions related to it.</p> <p>Most students demonstrate the ability to interpret results in the context of a simple experiment, reason and draw conclusions from descriptions and diagrams, and evaluate</p> <p>Most students will be able to comprehend an analyse text and answer questions related to it.</p> <p>Lower achievers will make increased progress, narrowing their GAPS in the assessments.</p> <p>High achievers and G&T pupils will show accelerated progress and greater depth.</p>	<p>situations, both familiar and unfamiliar.</p>	
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<p>PTS (as per GL Group Report AY 22-23) Biology- Knowledge and Understanding Organ system including animals</p> <p>Year 8 Item Gaps identified in PTS (as per GL Group Report AY 22-23) Chemistry- Metals Application of Knowledge and Understanding</p> <p><u>ATTAINMENT</u></p> <p>KEY STAGE 2</p> <p>Overall –V. Good All Male</p> <p>KEY STAGE 3</p> <p>Overall attainment in PTS is V. Good</p> <p>TIMSS Continue to maintain outstanding Attainment in TIMSS to exceed the targets</p>	<p>questions</p> <p>Raise challenge through differentiated activities and effective questioning to enhance:</p> <ul style="list-style-type: none"> Reasoning skills of the students by giving them appropriate Thinking Time Critical thinking and application of concepts in real world scenarios <p><u>Scientific Enquiry</u></p> <p>Revisit fair test and give more frequent opportunities for students to explain their methods and findings to the teacher and their peers to make connections and develop both their scientific thinking.</p> <p>Give students questions with data to help enhance their data analysis skills.</p>	<p>based lessons) these outstanding teachers can be buddied-up with teachers who need support by peer observation</p> <p>Implementation:</p> <p>Year 3 to 6</p> <p>Give students questions with data and graphs to help enhance their data and graphical analysis skills.</p> <p>To further enhance critical thinking and reasoning skills:</p> <ul style="list-style-type: none"> TIMSS style questions Comprehension based question Project based learning (PBL) and STREAM based HL activities Enquiry based questions Data based questions Support to lower stanine using individualised HL <p>Further Integrated real-life based tasks-In lessons.</p> <p>Year 7</p> <ul style="list-style-type: none"> Revisit the SOW for year 7 to modify the topics as per the gaps identified in Year 6. <p><u>Enhancing verbal skills of ELL</u> Use of visual media such as videos, concept cartoons, think pair share, group discussions To utilize PBL in helping decipher text (comprehension) and apply the knowledge</p> <p><u>Enhancing reasoning skills</u></p>		
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<p>set for the school for 2023</p> <p>TIMSS 2023 Target Range for Year 5</p> <p>598 - 608</p>		<p>Give students opportunities to create critical thinking questions</p> <p><u>Independent Learning</u></p> <p>Peer marking and self- marking of scientific enquiry and content based rubrics done regularly. Students identify targets for improvements. Further Integrated real-life based tasks-In lessons.</p> <p>Early intervention through Focussed lessons for a target group of students based on PTS-Year 6 analysis to bridge the gaps.</p> <p><u>Year 7 and 8</u></p> <p>focus on inquiry prompts and problem-based learning that emphasizes the higher order skills of hypothesizing or predicting ,interpreting results and applying reasoning.</p> <p>TIMSS</p> <ul style="list-style-type: none"> • Continue to provide ample opportunities in lessons to further enhance problem solving and Reasoning skills. •Continue to work on 2023 target score, with our in-depth and efficient gap analysis data in place, personalised, timely support followed by intervention and rigorous monitoring. 			
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		<ul style="list-style-type: none"> •Continue providing opportunities in lessons for reading and analyzing data especially in phase 2 and phase 3. •Continue to use visible thinking and concept cartoons as starters in primary to further enhance inquiry and reasoning. 		Achieve the target of 598-608 and ensure most of our students achieve advanced international bench mark and above in TIMSS 2023.	
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STUDENTS' ACHIEVEMENT (PS1) (1.3 Learning Skills)

Problem (Why?)	Intervention Description (What?)	Implementation Activities (How?)	Implementation Outcomes (How well?)	Final Outcomes (And so?)	Lead (Who will do?)
<p>1.Enhance communication skills in Science consistently with a greater focus on Students' interactions, collaboration, critical thinking skills and communication skills</p> <p>2.Enhance innovation and use of learning technologies</p>	<ul style="list-style-type: none"> ▪ Communication skills: Continue to ensure frequent opportunities for students to present their learning through in-depth discussions with rigorous use of scientific terminology, enhancing their communication skills. ▪ Effective provision to engage in Science related discussion through webinars, debates, Science Research journal 	<p>PD/Modelling by outstanding practitioners as needed by the department (innovation)</p> <p>Lesson observations and feedback</p> <p>Student feedback</p> <p>Science magazine</p>	<p>Regular and continuous monitoring to ensure outstanding students' outcome.</p>	<p>Most students will be able to communicate their understanding of concepts in depth, as evidenced through their work samples and lesson observations. Most students are innovative, enterprising and independent learners and they can find things out for themselves using a variety of different sources. They use learning technologies independently effectively.</p>	<p>Science HOD, HOYS, Science Teachers monitor and (lesson observation, Book look, SOW, lesson plans, data</p>
<p>2. Improve the Quality of Teaching and Learning.</p>					
<p>Improve the consistency of how well teachers -use time in</p>	<p>Identify the teachers where effective use of AFL to adjust teaching strategies is the focus point and work with them explicitly through</p>	<p>Identification and cascading by the end of October, implementation, monitoring and support</p>	<p>exemplar lesson plans, recorded lessons PD on effective questioning/ reflection sessions</p>		

<p>lessons to maximize learning</p> <p>-adjust teaching strategies to ensure students of all abilities make the best possible progress</p> <p>-embed students' mastery skills to enable them to securely attain above curriculum standards</p> <p>-accurately assess the depth of students' understanding</p>	<ul style="list-style-type: none"> ● Team teaching ● Modelling ● Lesson conferences ● Paired and peer observations ● Buddy support from VG/O teacher ● Training focussing on effective use of data to personalise and effectively use AfL strategies measure progress and adjust strategies to ensure almost all students make better than expected progress. <p>Ensure reflective practice where identified teachers record their individual lessons and evaluate use of time effectively in lessons.</p>	<p>ongoing</p>	<p>Sharing outstanding practices through Appreciative Enquiry</p> <p>Annotated lesson plans/SOW/Work Samples Rubrics , ILP's, IEPs Assessment trackers</p>		
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