

School Strategic Plan 2023-2027

John Monash Science School (8856)



JOHN MONASH
SCIENCE SCHOOL

Submitted for review by Peter Corkill (School Principal) on 15 December, 2023 at 03:25 PM
Endorsed by Eva McMaster (Senior Education Improvement Leader) on 15 December, 2023 at 04:05 PM
Awaiting endorsement by School Council President

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| School vision | The vision of John Monash Science School is to become a nationally and internationally recognised centre of excellence and innovation in the education of young people in the later years of secondary science, mathematics and associated technologies, reflecting global directions and priorities in scientific research and knowledge creation. (will be updated in the new Strategic Plan) |
| School values | <p>At JMSS we firmly believe in educating the 'whole person', developing leadership, initiative and perspective in our graduates. Our work is underpinned by UNESCO's Four Pillars of Education - Learning to Know, Learning to Be, Learning to Do and Learning to Live Together. Our curriculum documentation, from yearly plans, to unit plans and lesson plans, is all written with the Four Pillars at the forefront of our thinking. They provide the moral purpose for us to do what we do, and all teaching and learning programs seek to build on each of these pillars for our students.</p> <p>Our JMSS Diploma was developed and awarded for the first time to the Year 12 class of 2016. It enables students to gain recognition for their development in and contribution to both JMSS and the wider community in terms of leadership, service, sport and cultural activities. Students earn points for their involvement and success in all endeavours at JMSS which are categorised under one of our Four Pillars of Education.</p> |
| Context challenges | <p>John Monash Science School, which opened for the first time in 2010, is the first of its kind in Victoria and one of only three specialist science schools in Australia. The facilities and infrastructure are multi-storey and based on a 'learning commons' design to facilitate the variety of teaching and learning approaches characteristic of the school. Monash University continues to provide project officer support and academic staff to liaise and work with the school to further develop its innovative curriculum. It is a unique and critically important partnership.</p> <p>The student roll is around 640 Years 10 to 12 students from over 100 schools across the state, representative of all educational sectors and locations including rural Victoria. Students are selected after analysis of written assessments, activities and interviews. The school has a staffing Full-Time Equivalent of 62.96, comprising 3 Principal Class Officers, 44.86 teachers and 18.1 education support officers. The VCE results are generally outstanding, and over 90% of students enter science-related tertiary courses after they graduate. The attendance of students is outstanding, with the average</p> |

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| | <p>attendance of students at each year level being 98%.</p> <p>JMSS shares its range of unique curriculum options in science with schools in remote parts of Victoria through its Regional Exchange program, and to local Primary Schools through the Little Scientist Program. The school continues to offer the Emerging Sciences Victoria program, an initiative designed to continue to give access to contemporary science electives to students in regional Victoria and in time interstate. The school continues its international outreach with exchange programs now in place with National University of Singapore High School of Mathematics and Science, Ritsumeikan Science High School in Kyoto, Japan and Mahidol Wittayanusorn School in Thailand. We now present projects at significant international annual or biennial science fairs in Japan, Korea, Thailand, Adelaide, Singapore and Malaysia. JMSS continues to play a key role in coordinating the International Science Schools Network, and is an executive member of the ISSN.</p> <p>The following challenges need to be UPDATED</p> <p>The school's challenges are as follows:</p> <ol style="list-style-type: none"> 1. To keep improving the academic performance of our VCE graduates, especially with regards to literacy; 2. To further build the strength and efficacy of the team teaching model in place at JMSS, a unique model which is facilitating team-based learning in all subjects. We will also be looking at how to maximise the effectiveness of the actual learning spaces at the school; 3. To further build the confidence and resilience of our students via the ongoing implementation of our Positive Education model; 4. To sustain and grow our outreach programs to have an even greater impact on students who are passionate about science across Victoria, but do not have access to the resources and expertise that our own students do. |
| <p>Intent, rationale and focus</p> | <p>Overall the school's academic outcomes over the past four years have been excellent. Given that three of these years were impacted significantly by the Covid19 pandemic, especially 2020 and 2021, it is quite remarkable that our students have consistently achieved so well. This speaks to the quality and consistency of our team teaching model, the strength of our House system in being able to identify and support students who are falling behind and get them back on track. The fact that 96.5% of the ATAR scores exceeded 70 speaks volumes for the support and encouragement given to the students, and the very strong spirit of collaboration and co-operation that has been fostered here over many years. What we want to ensure now is that:</p> |

1. academic support is given to all students at the point of need, and that all students can aspire to and achieve consistently outstanding outcomes;
2. more girls enrol in Physics and Specialist Mathematics, which will enable more of them to be able to access Physics and Mathematics-based Science and Engineering courses into the future;
3. the percentage of ATARs above 70 continues to increase - it is already most impressive - 97% in 2023. In order to achieve this, we will ensure a greater differentiation of curriculum material in classes, with our better students being able to access more challenging material, and those students who might find themselves behind being supported to improve their understanding and application of key concepts;
4. the learning confidence of our students improves, by ensuring all of our classes enable students to help one another more effectively when the material becomes challenging. We also want to ensure that every student is KNOWN at JMSS. Our House system should ensure this is the case, but we have more work to do to ensure the high quality of student pastoral and academic care shown by mentors and House Leaders is consistently so across the school;
5. the access to and resourcing of our Wellbeing staff is improved. 2024 will see the relocation of the Wellbeing Team into newly designed spaces, which will be far more attractive and suitable for students to visit without being unnecessarily noticed, which has been a problem for us in the past with the open-plan nature of our facilities;
6. the Emerging Science Victoria program continues to grow and thrive as a wonderful resource of high quality contemporary and relevant science concepts accessible to students and teachers around Victoria.

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| Goal 1 | To optimise learning outcomes for all students. |
| Target 1.1 | Decrease the percentage of students receiving a raw study score below 28 in Mathematics Methods from 17% in 2022 to 12% in 2027. |
| Target 1.2 | Increase the percentage of female students successfully completing Unit 3-4 Physics from 37% in 2022 to 40% in 2027. |
| Target 1.3 | Decrease the percentage of Chemistry Unit 3-4 students achieving a raw study score below 28 from 21% in 2022 to 12% in 2027. |
| Target 1.4 | Increase the positive endorsement of the AtoSS Differentiated learning challenge factor from 67% in 2022 to 72% in 2027. |
| Key Improvement Strategy 1.a Documented teaching and learning program based on the Victorian Curriculum and senior secondary pathways, incorporating extra-curricula programs | Amplify positive elements of the school's teaching and learning model. |

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| <p>Key Improvement Strategy 1.b Documented teaching and learning program based on the Victorian Curriculum and senior secondary pathways, incorporating extra-curricula programs</p> | <p>Differentiate teaching and assessment to each student's point of need.</p> |
| <p>Key Improvement Strategy 1.c Systematic use of assessment strategies and measurement practices to obtain and provide feedback on student learning growth, attainment and wellbeing capabilities</p> | |
| <p>Goal 2</p> | <p>To develop healthy, happy, and resilient students.</p> |
| <p>Target 2.1</p> | <p>Increase the positive endorsement of the AtoSS Teacher concern factor from 52% in 2022 to 56% in 2027.</p> |
| <p>Target 2.2</p> | <p>Increase positive endorsement of the Parent Opinion Survey Parent participation and Involvement factor from 73% in 2022 to 77% in 2027.</p> |
| <p>Target 2.3</p> | <p>Increase the positive endorsement of the Parent Opinion Survey Confidence and Resilience Skills from 88% in 2022 to 93% in 2027.</p> |
| <p>Key Improvement Strategy 2.a Activation of student voice and agency, including in leadership and learning, to</p> | <p>Refine the whole school approach to student wellbeing.</p> |

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| strengthen students' participation and engagement in school | |
| Key Improvement Strategy 2.bi Activation of student voice and agency, including in leadership and learning, to strengthen students' participation and engagement in school | Review the purpose and impact of assessment on student learning and wellbeing. |
| Key Improvement Strategy 2.bii Systematic use of assessment strategies and measurement practices to obtain and provide feedback on student learning growth, attainment and wellbeing capabilities | |
| Key Improvement Strategy 2.ci The strategic direction and deployment of resources to create and reflect shared goals and values; high expectations; and a positive, safe and orderly learning environment | |
| Key Improvement Strategy 2.cii Responsive, tiered and contextualised approaches and strong relationships to support student learning, wellbeing and inclusion | Initiate community conversation focussing on factors impacting student resilience. |
| Goal 3 | To strengthen partnerships that support student pathways. |
| Target 3.1 | Increase positive endorsement of the AtoSS School stage transition factor (Years 10-12) from 77% in 2022 to 82% in 2027. |

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| <p>Target 3.2</p> | <p>Increase the number of students participating in the Emerging Science Victoria outreach program from 285 in 2021 to 300 in 2027.</p> |
| <p>Key Improvement Strategy 3.a Responsive, tiered and contextualised approaches and strong relationships to support student learning, wellbeing and inclusion</p> | <p>Strengthen existing partnerships with JMSS in STEM.</p> |
| <p>Key Improvement Strategy 3.b The strategic direction and deployment of resources to create and reflect shared goals and values; high expectations; and a positive, safe and orderly learning environment</p> | |