Kimberley Park State School

KIMBERLEY PARK STATE SCHOOL
Expressions of Interest
for
STEM Pathway of Excellence 2026

Achieving State Championships in The University of Queensland Wonder of Science program over eight years and winning teams for Regional, State, National and International Robotic competitions. The STEM Pathway of Excellence program is recognised as being rich in purposeful learning and engagement.

PROGRAM DETAILS

The **Kimberley Park State School STEM Pathway of Excellence program** is a select entry program that is open to all students in Year 4, 5 and 6. The program is designed to engage and enrich the learning of students who have demonstrated high interest and academic achievement in the areas of Maths, Science, and Technologies. Students in the program will be offered accelerated learning opportunities in STEM including Robotics, Coding, Science, Engineering and Mathematics through integrated learning pathways.

Students in the program are immersed in inquiry-based learning experiences that encourage critical thinking and promote student capacity to solve genuine and complex real-world problems. Students engage in learning programs with educational and industry partners including The University of Queensland, Griffith University, Queensland's Trust for Nature and the Queensland Museum.

PROGRAM COSTS

A fee of $140.00 per student, in addition to the Student Resource Scheme. The fee covers costs for resources for the STEM and Robotics programs your child will be participating in, including the University of Queensland Wonder of Science program.

SELECTION PROCEDURE

Students who apply for the program are selected through a five-stage process:

1.STEM application dates and application forms are released via KPSS newsletter, parent email and Facebook.
2.Families of applicants to submit the EXPRESSION OF INTEREST form complete with student response in either email to bbird31@eq.edu.au or at the front office of KPSS before round closing date. Please note students only complete the response for their year level in this application.
3.Eligible applicants will be invited to complete the ACER entry test at school.
4.Applicants will then be assessed based on ***ACER test, school reporting results, student response, student engagement at school and participation in STEM activities within the community.***
5.Successful applicants will be notified by mail in Term 4.

For more information about the Kimberley Park State School STEM Pathway of Excellence program please contact:
Bridgette Bird, STEM Champion - bbird31@eq.edu.au

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Expression of Interest Form
Kimberley Park State School
STEM Pathway of Excellence Program

PARENT RESPONSE	
Student Details	
Student Name:	Date of Birth:
School:	Current Year Level and Class:

Parent / Caregiver Details
Parent/ Caregiver Name(s):
Address:
Email:

Academic Results - Maths, Science and English	
2024	**2025**
English:	English:
Maths:	Maths:
Science:	Science:

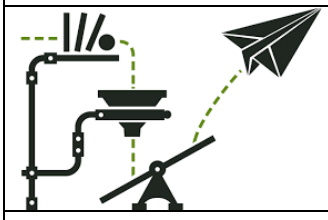
Other Academic Results
Please include other academic results including ICAS below.
☐
☐
☐

Student interest in STEM
Please indicate events or extra-curricular activities that your child has attended that have a STEM focus.
☐
☐
☐

Please also attach any photographs that you wish to share of STEM or other projects your child has completed at home.

STUDENT RESPONSE- Students that are currently in Year 3

CHALLENGE: Rube Goldberg Machine



Your challenge is to design and build a Rube Goldberg Machine using only items that you can find in your house. Your machine must have at least a lever and a ramp and complete a task such as pop a balloon, feed your fish or put paper in a recycle bin. Draw and label your design below or take a photo of your design and attach it below.

STUDENT RESPONSE- Students that are currently in Year 4 and 5

PROBLEM: Space exploration is littering space with junk!

Space Junk is a major problem for space exploration. The mass of debris currently in Earth orbit is estimated to weigh over 7 million kilograms. In 2021 NASA estimated that there are over 200 million pieces of debris approximately 23,000 pieces of debris larger than a softball orbiting the Earth. They travel at speeds up to 28160 km per hour, fast enough to damage a satellite or a spacecraft.

Space Junk that is man-made is called orbital debris and includes non-functional spacecraft, abandoned launch vehicle stages, mission-related debris, and fragmentation of space craft debris. The rising amount of space debris increases the potential danger to all space vehicles, including to the International Space Station and other spacecraft and space travellers. Scientists and innovators from large and small companies such as NASA, ClearSpace and Space X are looking to solve the problem of Space Junk. How can you help?

CHALLENGE: How can you help to solve the universal problem of Space Junk?

1. Create an annotated design (with labels) for an innovative Space Junk removal contraption.
2. Write an explanation of how your contraption works.
3. Include ideas for how it is made, how it will catch and release the junk and where the junk could go or what it could be after it is retrieved.
4. The explanation must be no more than 250 words.