

Storage Solutions for Year 8

Lucas Heights Community School developed an integrated Stage 4 STEM based project that utilised an existing TAS project on storage solutions to explicitly demonstrate the linkages between Mathematics, Science and Technology. The rationale behind the project was to foster greater communication between STEM subject areas to help students see the linkage to key outcomes across their subjects. Students utilised the design process to construct their own storage box in TAS. This included skills in measuring, cutting, sketching, joinery and finishing.

Science developed and carried out a series of tests to assess the strength of different types of joints typically used in cabinetry. The strength of each joint was tested using a cantilever method where students were able to test the maximum distance each joint could support using a cantilevered weight, rank the joints in order of strength and relate the joint strength to the features of the joint type.

Mathematics students were involved in maximisation and minimisation activities and volume activity where students produced their own sculptures based on given volume constraints.

Science outcomes	SC4-4WS SC4-5WS	SC4-6WS SC4-7WS	SC4-8WS
Mathematics outcomes	MA4-13MG	MA4-14MG	MA4-1WM MA4-2WM MA4-3WM
TAS outcomes	4.1.1 4.2.1 4.2.2	4.3.1 4.3.2	4.5.1 4.5.2 4.6.1

Statement of impact

The Storage Box project integrated skills and course content from Mathematics, Science and TAS which included many of the working mathematically, scientifically and technologically outcomes.

The evidence from student feedback suggested clearer understanding of the curriculum links that exist between STEM faculties. The nature of the project also provided opportunities for students to engage in the four C's of 21st Century skills: critical thinking, collaboration, creativity and communication.

For more information

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