

Curriculum Support

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FMY Focus on Middle Years

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Being enterprising in the middle years

Creating an enterprising learning environment for middle years students was a challenge taken up by 10 clusters of Stage 3 and Stage 4 teachers of technology during the first phase of the *Building bridges: enterprise learning in the middle years* project. A total of 22 high schools, primary schools and central schools participated in this phase of the project.

Building bridges involved students in Years 5–8 working together to develop a design-based project that focused on the *Science and Technology K–6 syllabus* and the *Technology (Mandatory) Years 7–8 syllabus*. Students developed enterprising capabilities by negotiating and resolving authentic design and production projects within their local school communities.

Participating schools undertook a diverse range of projects including:

- a viewing platform for astronomy
- a new menu for the school canteen
- a proposal for a recreational area for young teenagers
- a strategy to inform the local community of services provided by the RSPCA
- a drought resistant native garden
- a website to provide information about activities available in the local community.

A feedback workshop was conducted in Sydney for pilot schools to showcase their projects on 23 June 2006. Through their workshop presentations, the project schools showed just how enterprising students in Years 5–8 can be.



A Building Bridges teacher presenting to other project participants

The whole project was student-centred and therefore required students to take control of their own learning.

Teacher.

Students that I didn't expect to be enterprising have become so.

Teacher.

From the project feedback it was evident that authentic design projects are highly engaging and motivating for students. Students demonstrated great enthusiasm when their projects had real consequences and provided benefits for the community.

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One student commented that it ‘... would be good if other lessons let us do *real things*’.

Whilst several challenges exist in building an enterprising culture in NSW government schools, the comments of one school provide hope for the future:

The enterprising learning area was a bit of a revelation – it is now much clearer and we’ll see if it can be extended into other areas.



Alistair Duncan of the Eco Living Centre talks to Year 7 Kogarah High School students about the size and location of rainwater storage tanks as part of their design for a drought resistant native garden.

What does it mean to be enterprising?

In general, people who are enterprising demonstrate a range of capabilities or attributes. Some of these capabilities or attributes draw upon knowledge and skills that can be taught directly, such as project management. Others are closer to attitudes that are more difficult to teach directly, such as initiative.

Paul Kearney, an enterprise learning expert, suggests that students are learning to be enterprising when they are demonstrating capacities for:

- generating, identifying and assessing opportunities
- identifying, assessing and managing risks
- collecting, organising and analysing information
- generating and using creative ideas and processes
- solving problems
- recruiting and managing resources
- matching personal goals and capabilities to an undertaking
- working with others and in teams
- being flexible and dealing with change
- negotiating and influencing
- using initiative and drive
- monitoring and evaluating
- communicating ideas and information
- planning and organising.

(Enterprising ways to teach and learn: Book 1 enterprise principles, p. 19, Paul Kearney)

During the *Building bridges* project, teachers mapped these capabilities against Stage 3 outcomes and content of the *Science and Technology K–6 syllabus*, plus the *Technology (Mandatory) Years 7–8 syllabus* to identify opportunities to develop students’ enterprising capabilities. The mapping demonstrated a close relationship between the requirements of the syllabuses and the enterprising capabilities.

Teaching students to be enterprising in the middle years
Effective project-based learning in technology subjects provides many opportunities to teach middle years students the attributes of an enterprising person. Below are some questions for you to think about when reflecting on your teaching practice.

- Do students have opportunities to identify and pursue their own interests, passions and strengths and to negotiate significant aspects of their project work?
- Do you enable students to design solutions for purposeful, real-world opportunities, with needs that have meaning to the students?
- Do you allow students to use their initiative and be resourceful?
- Do you encourage students to work cooperatively and collaborate with others, both within and outside the school?
- Do students make decisions and take responsibility for their own learning?
- Do you provide opportunities for students to learn to manage projects for themselves?
- Do you allow students to do challenging work and to learn from mistakes?

The *Building bridges* project is continuing and the learning gained through the evaluation of the project will be made available in future **Curriculum Support** publications.

Participating schools

NSW DET Region	Schools
Hunter/Central Coast	Rutherford Primary School Rutherford Technology High School
Illawarra/South-East	Ulladulla Public School Ulladulla High School
New England	Quirindi Public School Quirindi High School
North Coast	Rolland Plains Public School Wauchope High School
Northern Sydney	Turrumurra North Public School Ku-rin-gai Creative Arts High School
Riverina	North Wagga Public School Wagga Wagga High School
Sydney	Bexley North Public School Kogarah High School
South-West Sydney	Robert Townson Public School Robert Townson High School
Western Sydney	Rooty Hill Public School Minchinbury Public School Eastern Creek Public School Rooty Hill High School
Western NSW	Baradine Central School Portland Central School