Prime Minister Tony Abbott committed $12 million on Tuesday to boost the teaching of science, technology, engineering and maths in schools. Most of the money, $7.4 million, will go to providing "innovative maths resources" for primary and high schools, and another $3.5 million to expose school students to computer coding.

The government will also push to boost student participation in STEM summer schools, with the aim of increasing the number of girls, disadvantaged students, indigenous students and those from outside the big cities. The government's move to boost STEM teaching in schools comes just after its review of the school curriculum, released on Sunday, recommended not offering students the digital technology subject until Year 9.

The Australian Council of Deans of Information and Communications Technology said it was "dismayed" at the curriculum recommendation. "Cutting the development of fundamental computational thinking so necessary for the jobs of tomorrow is equivalent to reducing the capabilities of school leavers to second class citizens on a global scale" said ACDICT president Iwona Miliszewska.

She said the call to reduce the digital curriculum was difficult to reconcile with the government's plan to enhance STEM teaching in schools. Professor Miliszewska said information and communications technology subjects should be introduced to students as early as possible.

Mr Abbott also announced a $500,000 grant to pilot one of his favourite educational projects – a school with strong industry involvement that includes mentoring, workplace visits and internships for students. It will be modelled on a school Mr Abbott visited in New York – the Pathways in Technology Early College High School – which is sponsored by IBM and other IT companies.

"I saw a school that I thought had a lot of potential in New York and we're going to explore something along similar lines in Australia," he said. "We're putting aside a modest amount of money to explore what might be possible."

The government plans to select a location for the pilot school in a socially disadvantaged area. The school will offer students a standard curriculum, augmented with technical subjects.