









**Attitudes and Motivation**

The national monitoring assessment programme recognises the impact of attitudinal and motivational factors on student achievement in individual assessment tasks. Students’ attitudes, interests and liking for a subject have a strong bearing on progress and learning outcomes. Students are influenced and shaped by the quality and style of curriculum delivery, the choice of content and the suitability of resources. Other important factors influencing students’ achievements are the expectations and support of significant people in their lives, the opportunities and experiences they have in and out of school, and the extent to which they have feelings of personal success and capability.

**Science Surveys**

The national monitoring science surveys sought information from students about their curriculum preferences and their perceptions of their achievement and potential in science. Students were also asked about their involvement in science related activities within school and beyond. The surveys were administered in a one-to-one interview setting, with some questions requiring short written answers and others a spoken response. There are numerous research questions that could be asked when investigating student attitudes and engagement. In national monitoring it has been necessary to focus on a few key questions that give an overall impression of how students regard science in relation to themselves.









Student Responses to the Year 4 Science Survey				
				
How much do you like doing science at school?	60%	32%	5%	3%
How much do you think you learn about science at school?	heaps 34%	quite a lot 43%	some 18%	very little 5%
Would you like to do more or less science at school?		more 66%	about same 26%	less 8%
How often does your class do really good things in science?		lots 22%	sometimes 72%	never 6%
How good do you think you are in science?	 25%	 64%	 8%	 3%
How much do you like doing science things in your own time, when not at school?	53%	27%	13%	7%
Do you do some really good things in science in your own time — when not at school?		lots 26%	some 60%	never 14%
Do you want to keep learning about science when you grow up?		yes 53%	maybe 43%	no 4%
Do you think you would make a good scientist when you grow up?		yes 22%	maybe 59%	no 19%

Year 4 students were generally very positive about doing science at school. A clear majority chose the highest rating for the first question (about liking to do science at school), and two thirds would like to do more science at school. The students were less confident that they learned a lot of science at school, with about one third saying that they learned “heaps” and only 22 % saying that their class did really good things in science “lots.”

Over half were enthusiastic about doing science things in their own time, with a quarter saying they did “lots” of really good science things in their own time.

More than half wanted to keep learning about science when they grew up, and almost a quarter thought they would make good scientists when they grew up.

### Student Responses to the Year 8 Science Survey

				
How much do you like doing science at school?	33%	59%	8%	0%
How do you like science compared with other subjects?	20%	58%	18%	4%
How much do you think you learn about science at school?	heaps 11%	quite a lot 53%	some 30%	very little 6%
Would you like to do more or less science at school?		more 47%	about same 49%	less 4%
How often does your class do really good things in science?	lots 5%	quite often 27%	sometimes 63%	never 5%
				
How good do you think you are in science?	10%	71%	17%	2%
How proud are you of your best work in science?	48%	44%	7%	1%
How much of your own time do you like to spend learning about science, doing science, talking about science?		heaps 9%	medium 63%	very little 28%
Have you done some really good science things in your own time?	yes, lots 9%	yes, quite a lot 24%	yes, some 57%	no, never 10%
Do you want to keep studying science as you get older?	yes, definitely 23%	probably 35%	maybe 39%	no, never 3%
Do you think you would make a good scientist?	yes, definitely 1%	probably 18%	maybe 55%	no, never 26%

The ratings given to the science survey questions by year 8 students were lower than those by year 4 students. More experienced students can be expected to be more discerning and critical, as well as more realistic about their own abilities. Nevertheless, the magnitudes of the changes between year 4 and year 8 on several questions which were identical in the two surveys appear to justify some concern.

Compared to year 4 students, on average year 8 students had distinctly less positive perceptions of science and themselves as science learners. For instance, on the first question in the survey (relating to enjoyment of science as a school subject), 33 percent of year 8 students used the most positive rating compared with 60 percent of year 4 students. Similarly, on the question “How good do you think you are in science?” 10 percent of year 8 students chose the top rating, compared with 25 percent of year 4 students.