

A NOTE TO PARENTS ABOUT SCIENCE STUDY, ASSESSMENT AND REPORTING

This is a short note to inform you about your son's Science studies.

Assessment in all subjects has undergone significant change in the last decade and the grades that appear on the reports nowadays do not mean the same as they did a decade ago and are certainly very different to what they meant when we (parents and teachers) were at school.

The boys have expressed some concern that the teachers are telling them that the grades mean one thing and their parents are interpreting grades on the reports quite differently. It is very important that teachers and parents have the same idea about what the grades mean.

Grades in the past

Most adults would remember the days when the good old mark out of 100 appeared on the report. It was an easily understood form of assessment where everyone tried to get above 50 because below this was considered a fail and if you were one of the very smart you often scored in the 90s.

Many parents probably wish we still had this easily understood form of reporting. Those of us in teaching who were responsible for compiling such marks for reports were very disappointed in this as a form of assessment.

Firstly the mark was more an indication of how hard the test was and, secondly, it said nothing about what the child could and couldn't do. If a child got 50% then where was he lacking?

More often, if the marks did not match what was wanted to be put on the report, then teachers adjusted them up or down.

In the HSC, much effort and an enormous amount of money is put into ensuring that the exams are similarly difficult to previous years and that they provide full and accurate coverage of topics. Even so, they still adjust the marks. In schools this same rigour is not possible so marks have long been out for reports.

Early grading using A-E

Grades were used to replace marks as an indication of the child's overall performance in a subject

When 'A - E' style grades first came in they had the following meaning - a 'C' was average and everyone wanted to be above average, an 'A' was to be hoped for but a 'B' was more likely if you worked fairly hard. 'D' was considered a failure and an 'E' landed you locked in your room doing study for the next month. Most students expected to get Bs.

Things changed again and grades began to be handed out on a percentage basis so that the top 10% got A, the next 20% got B, the next 40% got C and the bottom 30% shared out those horrid Ds and Es. You only had to be in the top 70% of students to at least get a C.

Grades used today - a 'D' is not that bad

Grades are not just used for overall assessment any more but are applied to the many areas of proficiency that appear on today's reports.

An 'N' is what in the past would have been considered a fail. It means the child has not presented sufficient evidence that he can do the most basic components in Science.

An 'E' means that the student has some ability (albeit limited) in the knowledge and skills needed for the subject. An E on a report should still start the alarm bells ringing for parents if they know that their child has reasonable ability.

A 'D' is considered to be satisfactory and can only be gained with some effort (almost like the old 'C'). Anything above that comes from concerted effort or ability with most

boys receiving 'Ds' early in the stage.

'Cs' are good grades to be worked hard for, 'As' and 'Bs' are reserved for the very top students. In Science we find it rare for students to get an 'A' and they are only given in cases where students display great proficiency.

An exceptional report would be one with a smattering of both 'As' and 'Bs'. There is only a limited number of students in a year who achieve straight 'As' for all components of the report.

How Science results are earned

In Science you will notice that the student's report is split into 10 important scientific areas of achievement. The first 4 are knowledge areas and the last 6 are skill areas.

Each skill area has numerous abilities that constitute achievement in that area. 5 different tasks which target the five grade levels have been prepared for each skill area. There are 2 testing periods for skills during the year. The mid-year grades represent where the student sits after the first round of testing.

Students are expected to be able to succeed at the following grade levels within a stage - if they reach that level they are graded as an A for that report. For a student to maintain A grades he must achieve higher levels at each successive testing time.

| | Task grades | Report grade conversions |
|--------------------|--------------------|--|
| Yr 7 & 9 / mid yr | E/D/C | satisfactory/high/excellent |
| Yr 7 & 9 / end yr | E/D/C/B | satisfactory/substantial/high/excellent |
| Yr 8 & 10 / mid yr | E/D/C/B/A | elementary/satisfactory/substantial/high/excellent |
| Yr 8 & 10 / end yr | E/D/C/B/A | elementary/satisfactory/substantial/high/excellent |

Any achievements at the mid year carry to the end of year and the student is able to improve on faulty skills in the second round of testing before the end year report.

Students grades can only improve between mid and end year.

The grades achieved by a student in year 7 are given to the year 8 teacher. Students start building their grades in Year 7 with a view to finalising their grade in Year 8 (what we call Stage 4 of schooling) as do those for Year 9 which build until Year 10 (Stage 5). It is important for parents to realise that the grades on this mid year report are part of a two year ongoing attempt by the boys to improve at each reporting period. What is a D grade in this report could easily be improved to a C or B in the next report.

It is very important that parents interpret grades the way they are intended so they do not read a report as poor when the teacher intended it to be read as reasonable. Please be supportive of your son's efforts and remember a D is not a fail.

Some New Assessment Strategies :

Education has gone through some major changes over the last decade and some of the strategies we employ in Science may well be quite different to your own experience at school. We have adopted these into the Science course at Patrician Brothers Blacktown in an attempt to encourage students in this subject and generate a greater sense of achievement.

Some of our strategies include :

- We don't report in marks. The questions and components of tasks have been set and graded to demonstrate different understandings and skills at varying levels of ability. The grade awarded each outcome on the report is directly related to the grade level of the questions correctly answered and the demonstrated ability. We do not add up marks and rank students – their ability is compared against our A - E range of standards that we have carefully established over the last few years.
- Carry over of grades from one year to the next, as explained earlier. Students results within a 2 year stage never go backwards – our emphasis is on how much they go forward. A printout of their current standings is issued regularly throughout the year and can be obtained from the teacher at any time. We hope that this creates a sense of achievement and progression that will encourage increased motivation.
- A significant amount of Science Skills assessment that, unlike the testing of facts, provides a more general cross curricular indication of student ability.
- Questions in tests that are set to specific standards and the standard is indicated to the student alongside each question by using an A to E scale. Tests have questions for all levels of students – the 'A' and 'B' questions are designed to challenge those students who are capable of higher level thinking. In senior years we extend this approach by supplying tests with many more questions than the students can answer in the time available allowing them to select the questions and levels at which they wish to perform.
- 3 X 1 minute book check opportunities during each knowledge test – old style tests were largely based on recall – there are many facts in Science that we would like students to remember but we are more interested these days in how students find and use information. To this end the boys are given 3 opportunities during each test to look up the text. Some students use the opportunity to locate facts asked for in the tests while the more able students use the chance to confirm understandings and search for small triggers that allow them to answer the more sophisticated questions. We believe that this allows many students to show their true ability, abilities that are often masked by more traditional testing conditions.
- A take home task that clearly links outcomes and achievable grades to every question. Students can choose those questions to which they wish to give extra emphasis in an attempt to lift their previous grades.
- A computer skills portfolio – students present certain computer based tasks that have been designed to demonstrate a variety of Science related computer skills. These results are then contributed to the new across the school Information Technology Certificate that all students must earn.