

## May 2018 extended essay reports

# Chemistry

## Overall grade boundaries

<b>Grade:</b>	E	D	C	B	A
<b>Mark range:</b>	0-6	7-13	14-20	21-26	27-34

## The range and suitability of the work submitted

As usual, we saw a wide range of work submitted: from typical topics (determination of vitamin C in orange juice, calculation of energy released by home-made biodiesel, effects of soda beverages on teeth, etc) to some innovative ones. Most pieces of work were suitable, though there are still many which resemble long lab reports, and even use former IA descriptors as titles for the different sections of the EE. The majority of the EEs were based on experiments, which helped students to achieve better grades, as the ones literature based are usually long pieces of information that were rarely well-argued, and only seldom reaching a conclusion.

## Candidate performance against each criterion

### Criterion A: focus and method

No major problems in the first two strands of this criterion. Most students wrote an introduction where they presented the topic and framed it within an academic context, followed by an appropriate research question, which almost always catered for what these strands look for. Justification or rationale for use of sources was lacking in most of the EEs submitted, as well as any support or rationale for the use of one method over another. In some cases sources used were not academic, but “popular” scientific magazines and articles, without even consulting text books.

### Criterion B: knowledge and understanding

An average performance was seen here. When EEs were based on a technique, some knowledge of the technique was shown, but almost no information was given about the chemical principles underlying the transformation taking place. Spanish EEs contained a lot of superficial information and lacked scientific rigour. Use of terminology was usually accurate, but there were some problems in the use of significant figures and use of SI units.

### Criterion C: critical thinking

This was the one criterion in which only few candidates got marks in the top band. Most problems were with evaluation, as the higher order skill. While analysis was usually good and focused, evaluation was weak and mainly based on practical aspects rather than on the method or sources chosen. Most of the EEs achieved marks in the 4-6 band. Arguments are usually descriptive; when a hypothesis was offered it was not always explained or “picked up” again in the conclusion.

#### Criterion D: presentation

The main reasons for not getting top marks here was; use of superfluous information or graphics, use of internal assessment title, lack of basic info in the body of the EE, tables and graphs lacking headings.

#### Criterion E: engagement

Most reflections were a plain description of the process, with little –if any- critical discussion/evaluation of the process. Students overlooked the importance of this criterion and how it contributes to the overall mark of the EE – it seemed that supervisors, too, were not fully aware of the expectations, and therefore did not conduct the reflection sessions using the sorts of questions required to make the student reflect on their process.