

Frequently Asked Questions on the CBAs

**NOTE: All page references are to the
*Junior Cycle Science Guidelines for the Classroom-Based Assessments and Assessment Task,
Second Edition, 2018***

1. Is there a prescribed booklet to fill in?

No, there is no prescribed booklet to fill in. Students will report their research and findings in a format of their choice as specified in the Guidelines (pg. 17 and pg. 28).

2. Where do we store CBAs?

Once the SLAR is completed, provisional descriptors have been reviewed and final descriptors awarded, the work is given back to the student and does not need to be stored.

3. Do I give students feedback on the CBAs?

Providing effective feedback is a crucial step in using the EEI and the SSI to support learning in science. Students will be informed of the descriptor they have been awarded once the SLAR meeting has taken place and its outcomes have been processed. However, effective feedback goes beyond the naming of the descriptor awarded. Feedback on the strengths of the student's work, and on areas for improvement can be used to support their future learning. Information gathered during the completion of the EEI and SSI, and from the Subject Learning and Assessment Review meeting can be used to inform planning for future teaching and learning (pg. 21 & pg. 34).

4. When do the titles come out?

There are no titles. The students choose a research question (EEI) and a scientific topic or issue (SSI) linked to one of the topic options listed in the Guidelines (pg. 15 & pg. 26).

5. Can all students do the same topic?

The Guidelines highlight that the CBAs **promote student engagement** through providing opportunity for **student choice** about the topic or issue to investigate or research. For the EEI and SSI, students are expected to choose a topic for investigation from the list provided in the Guidelines. From this, they must formulate a question to investigate and "under normal circumstances, each student / group should complete a different investigation" (pg. 12).

6. Do all students have to have a separate report?

Yes. For both CBAs, teachers should ensure that each student is individually able to produce evidence related to the Features of Quality of this assessment. For the EEI, whilst students are encouraged to work in groups, they must work individually to compile the report of their investigation. The SSI is an individual research investigation.

7. Can students work together?

The SSI is an individual research investigation. Whilst students may collaborate with classmates in gathering relevant information and data, each student must individually produce evidence to meet the Features of Quality of this assessment.

For the EEI students are encouraged to work in groups and will participate in four activities (not necessarily in a linear fashion) (pg. 15 - 17):

- Questioning and predicting: individually or in groups (each student must contribute to the work of the group)
- Planning and conducting: individually or in groups (each student should work on their own to write their Investigation Plan (pg. 36) but must contribute to the collection of data)
- Processing and analysing: should be done as individuals
- Reflecting and reporting: whilst students can reflect on their investigations together, they must report as individuals

8. Does it have to be a completely new investigation?

During the EEI, students will be required, amongst other things, to gather and analyse primary data. Similarly, during the SSI, students will be required to gather and analyse secondary data. In keeping with the spirit of the Guidelines, it is envisaged that students would engage with gathering new data for these investigations. In this regard, students would be carrying out new investigations. However, these investigations could be extensions of classroom work or areas of interest to students that were part of the teaching and learning process up to the point of the CBAs.

9. When should I share the Features of Quality with my students?

During your CPD with JCT science, we discussed the need to develop students' understanding of the features of a good investigation, as a **developmental process**, through the use of **formative assessment practices**. This supports students' understanding of the expectations of the features of an investigation, in line with the Features of Quality in the Guidelines. The Guidelines state that "From an early stage, students should be familiar with and **understand** the Features of Quality used to judge the quality of their investigation. This is best achieved when students use success criteria for ongoing assessments throughout first, second, and third year" (pg. 13). The teacher is the person best situated to decide on the rate at which this development progresses and will be guided by their professional judgement and their students' age and stage of learning.

10. How were the Features of Quality developed?

They were developed by the NCCA in consultation with the various educational stakeholders, based on the Nature of Science learning outcomes.

11. What is the purpose of the investigation plan?

As part of planning the investigation, "Students should be given time to have hands-on experience in the laboratory to plan and refine their experimental design, decide what equipment and materials will be necessary, and assess any possible risks" (pg. 16). After this planning session, the students submit an

investigation plan individually to their teachers. This should take no more than a single class period to complete. The plan details the research question, equipment and materials request and the proposed method. This information is important for the teacher to ascertain whether the proposed method is dangerous, if the method is unworkable or unmanageable for logistical reasons, or if the question does not lend itself to scientific investigation. This may prompt the teacher to suggest changes, or to provide assistance which in individual cases may be beyond reasonable support. This may inform teachers' overall consideration of the descriptor awarded when using the Features of Quality (pg. 16).

12. Why must each student submit an individual plan?

Submitting an investigation plan is good scientific practice for now and later life. By submitting an individual plan, each student takes active ownership of their investigation from the outset. The individual plans also provide the teacher with early evidence relating to the Features of Quality for each student. This may inform teachers' judgements when considering the level of achievement of their work.

13. What provisions can I make for my students with special educational needs (SEN)?

Special provisions may be put in place for a student with a specific physical or learning difficulty to remove as far as possible the impact of the disability on the student's performance in both Classroom--- Based Assessments and the Assessment Task so that he/she can demonstrate his/her level of achievement. The accommodations – for example, the use of Irish Sign Language, support provided by a Special Needs Assistant, or the support of assistive technologies – should be in line with the arrangements the school has put in place to support the student's learning throughout the school year and are not designed to compensate for a possible lack of achievement arising from a disability (pg. 9).

14. Can I consider my student's research records when awarding a descriptor to their investigation?

No, only a student's investigation report is considered when awarding a descriptor. However, the idea of students keeping records is a good scientific practice to develop. Part of this practice involves students recognising the need to transfer relevant information into their final report. It is important to remember that the CBA moment is also a formative process and therefore feedback can be given to the student from the evidence that existed in his/her research records but did not appear in his/her final report.

15. Do Features of Quality carry different weighting?

No, all Features of Quality carry equal weighting. When awarding a descriptor, the 'best fit' approach allows teachers to select the descriptor that 'on balance' describes the work being assessed.

16. For the EEI, does experimental mean "hands on" laboratory work?

Yes, it does. Students need to be given the opportunity to demonstrate evidence of learning related to the Features of Quality of the EEI, and "hands on" experimental investigation work provides this opportunity (pg. 16).