

# 2021 September Moderation - Report



## Meeting Details

Which meeting is this report for?

Physical Sciences Foundation Level 2

## Moderation Details for Calibration - Sample 1

Sample 1 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 8 = Overall, Element 1, Element 4

Sample 1 - What rating (or ratings) has the group assigned this sample?

B

Sample 1 - What evidence supports the rating (or ratings) the group has given?

A generally well constructed table and graph. Minor issues with the graph (units on the x axis)

Student obviously understands the phenomenon being observed.

Sample 1 - What evidence would you need to see in order to assign a higher rating (or ratings)?

Direct reference to the data when drawing conclusions.

Clearly refer to segments of the graph (perhaps with a tangent to determine instantaneous rate of cooling)

Draw a line of best fit through data points

Sample 1 - Summary of group consensus with comments to element level if applicable.

B standard was agreed for both elements and overall.

Sample 1 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

The group determined ways to improve the task so that the expectation to include mathematical reasoning is made explicitly clear to the student.

## Moderation Details for Calibration - Sample 2

Sample 2 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 8 = Overall, Element 1, Element 4

Sample 2 - What rating (or ratings) has the group assigned this sample?

B+ overall element 1 B and element 4 A

Sample 2 - What evidence supports the rating (or ratings) the group has given?

The data set was recorded and graphed to a high standard.

The student drew valid conclusions that had some reference to the data.

Sample 2 - What evidence would you need to see in order to assign a higher rating (or ratings)?

Greater use of mathematical interpretation of the data (similar to student 1) by finding the instantaneous rate of cooling at different points.

Sample 2 - Summary of group consensus with comments to element level if applicable.

Element 1 given a B as the student didn't really have an opportunity to reach an A standard due to the lack of specific instructions to use mathematical reasoning.

Element 4 a very good response

Overall B+ due to the abovementioned issue with Element 1

Sample 2 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

Same as sample 1, make the task expectations clearer because the student is clearly very capable.

## Moderation Details for Calibration - Sample 3

Sample 3 - Please identify each criterion being moderated and IF SELECTED the elements within that criterion

Criterion 8 = Overall, Element 1, Element 4

Sample 3 - What rating (or ratings) has the group assigned this sample?

C- for the elements and overall

Sample 3 - What evidence supports the rating (or ratings) the group has

The student has attempted most parts of the question but there were some errors/ omissions that meant it was not to a C standard overall.

given?

The table was filled in correctly.

Axes of the graph were labelled but there were no units.

Only one line of best fit for 4 variables.

Limited understanding represented in the conclusion and no mathematical reasoning shown.

Sample 3 - What evidence would you need to see in order to assign a higher rating (or ratings)?

Improve graphing skills.

Provide more detailed responses.

Sample 3 - Summary of group consensus with comments to element level if applicable.

The group agreed that this student may benefit from another attempt at the activity.

Sample 3 - What actions would you recommend for teachers to help the student attain a higher rating (or ratings)?

We decided that it would be good to enhance this task by providing more scaffolding for the calculations and then get them to repeat the activity 3 times so they can average their results and this would provide more opportunities to demonstrate mathematical understanding. Another option is to repeat using a temperature probe. Also could be graphed in excel.

Planning for March Moderation 2022 - Statewide Samples

For all courses please nominate the criteria and elements (if desired) for moderation.

Criterion 2

State the name of the person who will be providing the samples for moderation

Sue Saunders

Sharing Resources

Please record any links to or details of resources that were shared, or describe any assessment strategies that were discussed.

Sue shared the text book that was used to develop this task as most attendees liked this very much.

The resourceful physics teacher. Institute of Physics Publishing 2004

## Course Support

Please provide details of any future focus and ways forward you would like Years 9 to 12 Learning to consider in relation to this course:

It is important to consider Physical Sciences Foundation as a valuable part of the continuum of science teaching and learning for all Tasmanian students. Limiting access is not helpful.