

A Respiratory Health Report B E L O W L E V E L 1

Teacher's Notes

The following is a list of characteristics found in student work that was submitted for this task and assessed at “below level 1”. (Samples of student work are not included.)

Degree of achievement can vary widely in student performance that falls below level 1. Consequently, the following list includes characteristics of achievement at various degrees below level 1. Taken together, some or all of the characteristics outlined below may justify assessment at “below level 1”. Most of the characteristics noted relate to the criteria specified in the task rubric, but some are more broadly defined.

Knowledge/Understanding

The student:

- demonstrates little or no understanding of the concept of vital capacity in the diagram of the apparatus;
- designs an apparatus that is not functional;
- designs an apparatus that lacks detail and/or a scale of measurement;
- demonstrates little or no understanding of vital capacity in the description of the steps needed to build and operate the apparatus;
- omits either the steps needed to build or the steps needed to operate the apparatus;
- does not order steps sequentially;
- omits important steps;
- includes irrelevant and/or confusing instructions;
- does not consider modifications to the original design.

Inquiry

The student:

- provides little or no analysis of collected data and/or researched data;
- arrives at inaccurate or inappropriate conclusions;
- does not link the conclusions to the respiratory problems in the community;
- does not explain discrepancies between the results based on collected data and the results anticipated from research.

Communication

The student:

- does not provide a table;
- does not include both qualitative and quantitative variables in the table;
- includes variables that are inappropriate;
- does not include the vital capacity data in the table;
- does not provide graphs;
- provides graphs that do not agree with the collected data;
- makes conclusive statements but does not support them with the test results or research;
- does not explain the disparity between test results and conclusions;
- does not use or misuses scientific language.

Making Connections

The student:

- makes suggestions that apply to specific individuals but not to the community as a whole;
- makes suggestions that have little or no practicality for the community;
- makes suggestions that are simplistic;
- makes suggestions that are general in nature and not related to the specific community and the data collected;
- offers no means for implementing the suggestions;
- makes suggestions that are beyond the control of the community and the individuals living there.

Comments

The student demonstrates little or no understanding of the task and/or the concept of vital capacity. If several components of the task are not completed, or are scored below level 1, then the overall score will be below level 1.

Next Steps

In order to improve his or her performance, the student needs to:

- review the task requirements;
- review the concept of vital capacity;
- review the steps for scientific investigations;
- develop a repertoire of scientific terms;
- create accurate scientific diagrams;
- develop sequential steps for building and operating an apparatus that is functional;
- analyse collected data and research to produce a meaningful report;
- create meaningful tables and graphs;
- integrate information from tables and graphs into the text of the report;
- write a clear and accurate scientific report;
- use the results of experiments to form meaningful conclusions and recommendations;
- proofread and edit all work to eliminate errors.