


SCOPE & SEQUENCE
GR. 7 - SCIENCE

Student Task

GRADE 7: Science

TOPIC 3: Temperature and Heat Measurement

TASK: Recording Lab Experiment Results Using Tables Using Word Processing

PRODUCTIVITY TOOL: Word Processor

TIMELINE: 2 Classes (1 for lab, 1 for write-up)

LEVEL OF DIFFICULTY: ☺☺ Average

Students will conduct an experiment whereby they measure the temperatures of specific amounts of hot and cold water, then predict the resulting temperature when they are mixed together. Predictions and results are put into a table for analysis.



ICT Outcomes

The learner will:

- C1** 3.6 communicate in a persuasive and engaging manner, through appropriate forms, such as speeches, letters, reports and multimedia presentations, applying information technologies for content, audience and purpose
- C6** 3.2 identify the appropriate materials and tools to use in order to accomplish a plan of action
- C7** 3.1 identify patterns in organized information
3.2 make connections among related, organized data, and assemble various pieces into a unified message
- F1** 3.1 demonstrate an understanding that information can be transmitted through a variety of media
3.3 apply terminology appropriate to the technology being used at this division level
- F2** 3.6 explain ways in which technology can assist in the monitoring of local and global environmental conditions
- F3** 3.1 use time and resources on the network wisely
3.6 model and assume personal responsibility for ethical behavior and attitudes and acceptable use of information technologies and sources in local and global concepts
- F4** 3.1 identify aspects of style in a presentation
- P1** 3.2 use advanced word processing menu features to accomplish a task; for example, insert a table, graph or text from another document
- P4** 3.3 emphasize information, using placement and colour





Curriculum Outcomes

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Specific Learner Expectations

Attitudes

Students will be encouraged to develop:

1. respect for precision in measurement
3. recognition of the need for specialized instrumentation for specific applications

Skills

Students will demonstrate the following science inquiry skills, specifically questioning, proposing ideas, gathering data, processing data, and interpreting data.

Concepts

4. The scientific concept of heat is used to describe the thermal energy in a material.
 - recognize that when the temperature of a substance increases, the substance has absorbed heat; when the temperature of a substance decreases, the substance has lost heat
 - estimate final temperature of a mixture of equal quantities of a liquid of different temperatures
 - recognize that the final temperature of liquid mixtures is affected by the mass and heat-related characteristics of the original components
 - distinguish between the concept of temperature and the concept of heat
 - describe temperature and heat in terms of particle motion

