

## ACHIEVEMENT CHART: SCIENCE, GRADES 9–12

| Categories  | 50–59%<br>(Level 1)  | 60–69%<br>(Level 2)   | 70–79%<br>(Level 3)   | 80–100%<br>(Level 4)  |
|---|--|---|---|---|
| <b>Knowledge and Understanding</b> – Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)                                  |  |   |   |   |
|   | The student:   |   |   |   |
| <b>Knowledge of content</b><br>(e.g., facts, terminology, definitions, safe use of equipment and materials)   | demonstrates limited knowledge of content  | demonstrates some knowledge of content  | demonstrates considerable knowledge of content  | demonstrates thorough knowledge of content  |
| <b>Understanding of content</b><br>(e.g., concepts, ideas, theories, principles, procedures, processes)   | demonstrates limited understanding of content  | demonstrates some understanding of content  | demonstrates considerable understanding of content  | demonstrates thorough understanding of content  |
| <b>Thinking and Investigation</b> – The use of critical and creative thinking skills and inquiry, research, and problem-solving skills and/or processes   |  |   |   |   |
|   | The student:   |   |   |   |
| <b>Use of initiating and planning skills and strategies</b><br>(e.g., formulating questions, identifying the problem, developing hypotheses, selecting strategies and resources, developing plans)        | uses initiating and planning skills and strategies with limited effectiveness                | uses initiating and planning skills and strategies with some effectiveness                | uses initiating and planning skills and strategies with considerable effectiveness                | uses initiating and planning skills and strategies with a high degree of effectiveness                |
| <b>Use of processing skills and strategies</b><br>(e.g., performing and recording, gathering evidence and data, observing, manipulating materials and using equipment safely, solving equations, proving) | uses processing skills and strategies with limited effectiveness                             | uses processing skills and strategies with some effectiveness                             | uses processing skills and strategies with considerable effectiveness                             | uses processing skills and strategies with a high degree of effectiveness                             |
| <b>Use of critical/creative thinking processes, skills, and strategies</b><br>(e.g., analysing, interpreting, problem solving, evaluating, forming and justifying conclusions on the basis of evidence)   | uses critical/creative thinking processes, skills, and strategies with limited effectiveness | uses critical/creative thinking processes, skills, and strategies with some effectiveness | uses critical/creative thinking processes, skills, and strategies with considerable effectiveness | uses critical/creative thinking processes, skills, and strategies with a high degree of effectiveness |
| <b>Communication</b> – The conveying of meaning through various forms   |  |   |   |   |
|   | The student:   |   |   |   |
| <b>Expression and organization of ideas and information</b><br>(e.g., clear expression, logical organization) in oral, visual, and/or written forms<br>(e.g., diagrams, models)                           | expresses and organizes ideas and information with limited effectiveness                     | expresses and organizes ideas and information with some effectiveness                     | expresses and organizes ideas and information with considerable effectiveness                     | expresses and organizes ideas and information with a high degree of effectiveness                     |

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|---|--|---|---|---|
| <b>Communication</b> ( <i>continued</i> )   |  |   |   |   |
|   | The student:   |   |   |   |
| <b>Communication for different audiences</b> ( <i>e.g., peers, adults</i> ) <b>and purposes</b> ( <i>e.g., to inform, to persuade</i> ) <b>in oral, visual, and/or written forms</b>                    | communicates for different audiences and purposes with limited effectiveness                           | communicates for different audiences and purposes with some effectiveness                           | communicates for different audiences and purposes with considerable effectiveness                           | communicates for different audiences and purposes with a high degree of effectiveness                           |
| <b>Use of conventions, vocabulary, and terminology of the discipline in oral, visual, and/or written forms</b> ( <i>e.g., symbols, formulae, scientific notation, SI units</i> )                        | uses conventions, vocabulary, and terminology of the discipline with limited effectiveness             | uses conventions, vocabulary, and terminology of the discipline with some effectiveness             | uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness             | uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness             |
| <b>Application</b> – The use of knowledge and skills to make connections within and between various contexts  |  |   |   |   |
|   | The student:   |   |   |   |
| <b>Application of knowledge and skills</b> ( <i>e.g., concepts and processes, safe use of equipment, scientific investigation skills</i> ) <b>in familiar contexts</b>                                  | applies knowledge and skills in familiar contexts with limited effectiveness                           | applies knowledge and skills in familiar contexts with some effectiveness                           | applies knowledge and skills in familiar contexts with considerable effectiveness                           | applies knowledge and skills in familiar contexts with a high degree of effectiveness                           |
| <b>Transfer of knowledge and skills</b> ( <i>e.g., concepts and processes, safe use of equipment, scientific investigation skills</i> ) <b>to unfamiliar contexts</b>                                   | transfers knowledge and skills to unfamiliar contexts with limited effectiveness                       | transfers knowledge and skills to unfamiliar contexts with some effectiveness                       | transfers knowledge and skills to unfamiliar contexts with considerable effectiveness                       | transfers knowledge and skills to unfamiliar contexts with a high degree of effectiveness                       |
| <b>Making connections between science, technology, society, and the environment</b> ( <i>e.g., assessing the impact of science on technology, people and other living things, and the environment</i> ) | makes connections between science, technology, society, and the environment with limited effectiveness | makes connections between science, technology, society, and the environment with some effectiveness | makes connections between science, technology, society, and the environment with considerable effectiveness | makes connections between science, technology, society, and the environment with a high degree of effectiveness |
| <b>Proposing courses of practical action to deal with problems relating to science, technology, society, and the environment</b>  | proposes courses of practical action of limited effectiveness  | proposes courses of practical action of some effectiveness  | proposes courses of practical action of considerable effectiveness  | proposes highly effective courses of practical action   |

Note: A student whose achievement is below 50% at the end of a course will not obtain a credit for the course.

## EVALUATION AND REPORTING OF STUDENT ACHIEVEMENT

Student achievement must be communicated formally to students and parents by means of the Provincial Report Card, Grades 9–12. The report card provides a record of the student's achievement of the curriculum expectations in every course, at particular points in the school year or semester, in the form of a percentage grade. The percentage grade represents the quality of the student's overall achievement of the expectations for the course and reflects the corresponding level of achievement as described in the achievement chart for the discipline.

A final grade is recorded for every course, and a credit is granted and recorded for every course in which the student's grade is 50% or higher. The final grade for each course will be determined as follows:

- Seventy per cent of the grade will be based on evaluations conducted throughout the course. This portion of the grade should reflect the student's most consistent level of achievement throughout the course, although special consideration should be given to more recent evidence of achievement.
- Thirty per cent of the grade will be based on a final evaluation in the form of an examination, performance, essay, and/or other method of evaluation suitable to the course content and administered towards the end of the course.

## REPORTING ON DEMONSTRATED LEARNING SKILLS

The report card provides a record of the learning skills demonstrated by the student in every course, in the following five categories: Works Independently, Teamwork, Organization, Work Habits, and Initiative. The learning skills are evaluated using a four-point scale (E–Excellent, G–Good, S–Satisfactory, N–Needs Improvement). The separate evaluation and reporting of the learning skills in these five areas reflects their critical role in students' achievement of the curriculum expectations. To the extent possible, the evaluation of learning skills, apart from any that may be included as part of a curriculum expectation in a course, should not be considered in the determination of percentage grades.