

# Achievement Chart – Science and Technology, Grades 1-8 and Science, Grade 9 – 12

Categories	50-59% (Level 1)	60-69% (Level 2)	70-79% (Level 3)	80-100% (Level 4)
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**Knowledge and Understanding** *Subject-specific content acquired in each grade (knowledge), and the comprehension of its meaning and significance (understanding)*

**The student:**

Knowledge of content (e.g., facts; terminology; definitions; safe use of tools, equipment, and materials)	- demonstrates limited knowledge of content	- demonstrates some knowledge of content	- demonstrates considerable knowledge of content	- demonstrates thorough knowledge of content
Understanding of content (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

**Thinking and Inquiry** *-The use of critical and creative thinking skills, inquiry skills and/or processes*

**The student:**

Use of initiating and planning skills and strategies - understanding the problem (e.g., formulating questions, identifying the problem, scheduling, selecting strategies and resources, developing preliminary ideas and plans) - making a plan for solving the problem	- 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
Use of processing skills and strategies - carrying out a plan (e.g., performing and recording, gathering evidence, observing, manipulating materials and equipment)	- 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
Use of critical/creative thinking processes, skills and strategies - looking back at the solution (e.g., analysing, interpreting, evaluating, forming conclusions, examining information and 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

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**Communication** *The conveying of meaning through various forms*

**The student:**

Expression and organization of ideas and information (e.g., clear expression, logical organization) in oral, visual, and/or written forms

- express and organizes ideas and information with limited effectiveness

- express and organizes ideas and information with some effectiveness

- express and organizes ideas and information with considerable effectiveness

- express and organizes ideas and a high degree of effectiveness

Communication for different audiences (e.g., peers, adults) and purposes (e.g., to inform, to persuade) in oral, visual, and/or written forms

- 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

Use of conventions, vocabulary, and terminology of the discipline in oral, visual, and/or written forms

- 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

**Application** *The use of knowledge and skills to make connections within and between various contexts*

**The student:**

Application of knowledge and skills (e.g., concepts, processes, use of equipment and technology, seeks answers to questions through inquiry, problem solving and decision making) in familiar contexts

- 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

Making connections among science, technology, society, and the environment

- makes connections with limited effectiveness

- makes connections with some effectiveness

- makes connections with considerable effectiveness

- makes connections with a high degree of effectiveness

- description of how science and technology affect the lives of people and other living things in their community
- assessment of impacts of science and technology on society and the environment

Proposal of courses of practical action to deal with problems involving science, technology, society, and the environment

- 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