**KICA Categories of Assessment for Science**

**Knowledge and Understanding** – Subject-specific content acquired in each course (knowledge), and the comprehension of its meaning and significance (understanding)

Knowledge of content (e.g., facts, terminology, definitions, safe use of equipment and materials)

Understanding of content (e.g., concepts, ideas, theories, principles, procedures, processes)

**Thinking and Investigation** – The use of critical and creative thinking skills and inquiry, research, and problem-solving skills and/or processes

Use of initiating and planning skills and strategies (e.g., formulating questions, identifying the problem, developing hypotheses, selecting strategies and resources, developing plans)

Use of processing skills and strategies (e.g., performing and recording, gathering evidence and data, observing, manipulating materials and using equipment safely, solving equations, proving)

Use of critical/creative thinking processes, skills, and strategies (e.g., analysing, interpreting, problem solving, evaluating, forming and justifying conclusions on the basis of evidence )

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

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

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

Use of conventions, vocabulary, and terminology of the discipline in oral, visual, and/or written forms (e.g., symbols, formulae, scientific notation, SI units)

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

Application of knowledge and skills (e.g., concepts and processes, safe use of equipment, scientific investigation skills) in familiar contexts

Transfer of knowledge and skills (e.g., concepts and processes, safe use of equipment, scientific investigation skills) to unfamiliar contexts

Making connections between science, technology, society, and the environment (e.g., assessing the impact of science on technology, people and other living things, and the environment)

Proposing courses of practical action to deal with problems relating to science, technology, society, and the environment