Objective A: Knowing and understanding

i. outline scientific knowledge

ii. apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations

iii. interpret information to make scientifically supported judgments.

Objective B: Inquiring and designing

i. outline an appropriate problem or research question to be tested by a scientific investigation

ii. outline a testable prediction using scientific reasoning

iii. outline how to manipulate the variables, and outline how data will be collected

iv. design scientific investigations.

Objective C: Processing and evaluating

i. present collected and transformed data

ii. interpret data and outline results using scientific reasoning

iii. discuss the validity of a prediction based on the outcome of the scientific investigation

iv. discuss the validity of the method

v. describe improvements or extensions to the method.

Objective D: Reflecting on the impacts of science

i. summarize the ways in which science is applied and used to address a specific problem or issue

ii. describe and summarize the various implications of using science and its application in solving a specific problem or issue

iii. apply scientific language effectively

iv. document the work of others and sources of information used.

Science Year 1 Summative Assessment Criteria Rubric

Level	Criteria A: Knowing and Understanding	Criteria B: Inquiring and Designing	Criteria C: Processing and Evaluating	Criteria D: Reflecting on the Impacts of Science
1-2	i. select scientific knowledge ii. select scientific knowledge and understanding to suggest solutions to problems set in familiar situations iii. apply information to make judgements, with limited success	i. select a problem or question to be tested by scientific investigation, with limited success ii. select a testable hypothesis iii. state a variable iv. design a method, with limited success	i. collect and present data in numerical and/or visual forms ii. interpret data iii. state the validity of a prediction based on the outcome of the scientific investigation, with limited success iv. state the validity of the method with limited reference to a scientific investigation, with limited success v. state limited improvements or extensions to the method that would benefit the scientific investigation, with limited success	i. state the ways in which science is used to address a specific problem or issue ii. state the implications of using science to solve a specific problem or issue interacting with factor iii. apply scientific language to communicate understanding iv. document sources
3-4	i. recall scientific knowledge ii. apply scientific knowledge and understanding to suggest solutions to problems set in familiar situations iii. apply information to make judgements	i. state a problem or question to be tested by scientific investigation ii. state a testable hypothesis using scientific reasoning iii. state how to manipulate variables, and state how data will be collected iv. design a safe method in which he or she selects materials and equipment	i. correctly collect and present data in numerical and/or visual forms ii. accurately interpret data and outline results iii. state the validity of a predictions based on the outcome of the scientific investigation iv. state the validity of the method based on the outcome of a scientific investigation v. state improvements or extensions to the method that would benefit the scientific investigation	i. state the ways in which science is used to address a specific problem or issue ii. state the implications of using science to solve a specific problem or issue interacting with factor iii. sometimes apply scientific language to communicate understanding iv. sometime document sources correctly

5-6	i. states scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar situations iii. apply information to make scientifically supported judgements	i. state a problem or question to be tested by scientific investigation ii. outline a testable prediction iii. outline how to manipulate variables, and outline how sufficient, relevant data will be collected iv. design a safe method in which he or she selects appropriate materials and equipment	i. correctly collect, organize and present data in numerical and/or visual forms ii. accurately interpret data and outline results using scientific reasoning iii. outline the validity of a hypothesis based on the outcome of the scientific investigation iv. outline the validity of the method based on the outcome of a scientific investigation v. outline improvements or extensions to the method that would benefit the scientific investigation	i. outline the ways in which science is used to address a specific problem or issue ii. outline the implications of using science to solve a specific problem or issue interacting with factor iii. usually apply scientific language to communicate understanding clearly and precisely iv. usually document sources correctly
7-8	i. outline scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations iii. Interpret information to make scientifically supported judgements	i. outline a problem or question to be tested by scientific investigation ii. outline a testable predication using correct scientific reasoning iii. outline how to manipulate variables, and outline how sufficient, relevant data will be collected iv. design a logical, complete and safe method in which he or she selects appropriate materials and equipment	i. correctly collect, organize, transform and present data in numerical and/or visual forms ii. accurately interpret data and outline results using correct scientific reasoning iii. discuss the validity of a hypothesis based on the outcome of the scientific investigation iv. discuss the validity of the method based on the outcome of a scientific investigation v. describe improvements or extensions to the method that would benefit the scientific investigation	i. summarize the ways in which science is used to address a specific problem or issue iii. describe and summarize the implications of using science and its application to solve a specific problem or issue interacting with factor iii. consistently apply scientific language to communicate understanding clearly and precisely iv. document sources completely