

Planning a progression of learning

Throughout the programme, students should engage with the curriculum and be expected to demonstrate their understanding at increasing levels of sophistication. The range of assessed skills, techniques, and concepts, as well as the complexity of their application, must increase as students progress through the programme.

Year 1 In order to reach the aims of sciences, students should be able to:	Year 3 In order to reach the aims of sciences, students should be able to:	Year 5 In order to reach the aims of sciences, students should be able to:
Objective A: Knowing and understanding		
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> i. describe scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations iii. analyse information to make scientifically supported judgments. 	<ul style="list-style-type: none"> i. explain scientific knowledge ii. apply scientific knowledge and understanding to solve problems set in familiar and unfamiliar situations iii. analyse and evaluate information to make scientifically supported judgments.
Objective B: Inquiring and designing		
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> i. describe a problem or question to be tested by a scientific investigation ii. outline a testable hypothesis and explain it using scientific reasoning iii. describe how to manipulate the variables, and describe how data will be collected iv. design scientific investigations. 	<ul style="list-style-type: none"> i. explain a problem or question to be tested by a scientific investigation ii. formulate a testable hypothesis and explain it using scientific reasoning iii. explain how to manipulate the variables, and explain how data will be collected iv. design scientific investigations.

Year 1 In order to reach the aims of sciences, students should be able to:	Year 3 In order to reach the aims of sciences, students should be able to:	Year 5 In order to reach the aims of sciences, students should be able to:
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.	i. present collected and transformed data ii. interpret data and describe results using scientific reasoning iii. discuss the validity of a hypothesis based on the outcome of the scientific investigation iv. discuss the validity of the method v. describe improvements or extensions to the method.	i. present collected and transformed data ii. interpret data and explain results using scientific reasoning iii. evaluate the validity of a hypothesis based on the outcome of the scientific investigation iv. evaluate the validity of the method v. explain improvements or extensions to the method.
Objective D: Reflecting on the impact 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 the use of 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.	i. describe the ways in which science is applied and used to address a specific problem or issue ii. discuss and analyse the various implications of the use of 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.	i. explain the ways in which science is applied and used to address a specific problem or issue ii. discuss and evaluate the various implications of the use of 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.