They should be able to

1. Demonstrate knowledge and understanding of the historical development of scientific ideas, and apply that knowledge to differentiate between the different areas of science.
2. Apply the scientific method to plan and conduct scientific investigations.
3. Create an investigation report following scientific and academic conventions.
4. Demonstrate knowledge of scientific concepts and terminology from the different areas of science.
5. Demonstrate familiarity with and ability to use scientific language, units and notation correctly.
6. Demonstrate knowledge and understanding of the historical development of scientific ideas, and apply that knowledge to differentiate between the different areas of science.
7. Demonstrate knowledge of scientific concepts and terminology from the different areas of science.
8. Discuss the contribution of scientific advances.

Stage	Use	Your notes
Starter 10 min · retrieval practice	Topic quiz 01 (10 questions, answers on sheet 2)	
Teach the new content	Handout 01 Slide deck 01 Vocabulary list 01	
Practice guided then independent	Exercise sheets 1.1, 1.2, 1.3, 1.4, 1.5	
Check before they leave	*nothing in the Library for this stage yet*	
Homework set from the Library	Any unused exercise sheet above	

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They should be able to

1. Demonstrate knowledge and understanding of major biological concepts and ideas.
2. Collaboratively plan and implement a scientific investigation following scientific and academic conventions.
3. Demonstrate knowledge and understanding of major biological concepts and ideas.
4. Describe the main components of an ecosystem and the main processes that take place in it.
5. Identify and describe the physical, chemical and biological features of the local environment.
6. Create a written report following scientific and academic conventions using Internet research.
7. Demonstrate an understanding of atomic structure, the changes it can undergo and the use of the Periodic Table.
8. Explain how applications of chemistry affect the environment.
9. Demonstrate an understanding of wave motion.

Stage	Use	Your notes
Starter 10 min · retrieval practice	Topic quiz 02 (10 questions, answers on sheet 2)	
Teach the new content	Handout 02 Slide deck 02 Vocabulary list 02	
Practice guided then independent	Exercise sheets 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7	
Check before they leave	*nothing in the Library for this stage yet*	
Homework set from the Library	Any unused exercise sheet above	