Pupils in the main school are streamed into 4 sets and learning objectives are set according to need. All pupils complete the same topics in the same term with the content following KS1/2 or 3 key concepts depending on the needs of the pupils. The order the topics are delivered will depend on the set.

Introduction to lab work

The students are introduced to the lab environment, safety rules and how to use key pieces of equipment including thermometers, measuring cylinders and Bunsen burners.

Solids, Liquids and Gases

Students learn to recognise what solids, liquids and gases are, how substances can be change from one state of matter to the next and the processes involved.

Chemical Reactions

In this lab based topic students learn to recognise when a chemical reaction has happened and learn how to produce and test for common gases released in chemical reactions.

Magnetism

Students learn to recognise the properties of magnets and magnetic fields. They learn common uses for magnets and make an electromagnet.

Electricity

Students learn about electricity in the home and electrical safety. They learn to draw and make electrical circuits, and learn which materials are conductors and which are insulators.

Pupils in the provision also receive specialised science lessons designed to promote awe and wonder and foster skills and a love of learning.

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The Human Body

Students learn about the human body. Students learn about the skeletal system and how bones protect vital organs, give us shape and allow us to move. Students learn about muscle, about the composition of blood, the structure of the heart and the cardiovascular system.

Food Chains

Students learn about the relationships between plants and animals in a habitat and the adaptations of herbivores, carnivores and omnivores. Pupils learn how food chains exist in food webs and how changes in a population can affect the whole food web,

Earth and Space

Students learn about the formation of earth, its structure and how it has changed over time. They learn that the Earth has layers and about the resources we get from earth.

Pupils learn about the position of earth and other planets in the solar system. They learn how the earths spin gives us day and night and its tilt and rotation around the sun gives us the seasons. Pupils learn about our moon and its phases.

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Separating Mixtures

Students learn the techniques used to separate different mixtures and the applications for each technique. This is a practical topic based mostly in the lab Students will use a range of scientific equipment to carry out filtration, evaporation, distillation and chromatography.

Energy

Students learn about different types of energy including sound, light, stored and gravitational energy. Students learn how energy is transferred. Students learn about fossil fuels and sustainable energy.

Food and Digestion

Students learn about the different organs of the human digestive system and how they are adapted to their function. Students learn about the key nutrients and energy in foods and how to read food labels. Students learn the chemical tests for the main nutrients and practice carrying them out.

Lungs and Respiration

Students learn about the structure of the respiratory system and the role and features of each part. Pupils look at their breathing rate and their lung function including volume and peak flow. Pupils learn how the lungs are adapted to their function and their importance in providing oxygen for the body to release energy from sugar.

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The curriculum is designed to encourage curiosity and a passion for science. It is designed to help students develop their questioning skills and critical thinking. Through experimental work students develop independence, confidence and self-belief. Desired outcome is cohort specific but all students are expected to progress through the Glebe Stages as measured through their scientific enquiry skills. Students will also have their foundation knowledge secured ready to deepen and widen their scientific education in the years ahead.

SS .	Each topic finishes with an end of unit test	Each topic finishes with an end of unit test	Each topic finishes with an end of unit test	Ms L Latchem
sse				llatchem@glebe.bromley
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