PLUME ACADEMY - LEARNING OVERVIEW

Year	7
Subject	General Science

Prior Learning

The Year 7 curriculum builds on prior learning by reviewing and linking to the key stage 2 topics by continuing to challenge misconceptions, enhancing understanding and developing knowledge further. Key stage 2 topics will be linked to those studied in year 7 and build on prior knowledge. In Year 6 students covered topics such as Living things and their habitats, Animals, Evolution & Inheritance and Light.

Curriculum Intent – What are the curriculum aims?

Our curriculum is designed to promote a love of science in all our students through developing their curiosity and fascination about the subject. We provide an exciting and varied curriculum that offers wonder to our students helping to develop their knowledge and understanding of the biological, chemical and physical world around them.

Students continue to develop and build on the investigative skills they learnt and developed in key stage 2. Students need to develop resilience and understanding that science is a way of thinking much more than it is a body of knowledge. Students need to develop scientific enquiry and investigation skills.

The syllabus uses big ideas and mastery goals to equip students for success at GCSE. It also provides a method to follow student progress as their understanding develops during KS3.

Using the big ideas principle, the generalisations, principles and models which connect concepts are at the heart of our syllabus. We believe this is how students learn to see the world analytically, to explain phenomena and make predictions – all skills they need for their next stage of scientific learning.

Curriculum Implementation – What will my child be learning?

Term 1	Half Term 1	– Science Introduction e.g., safety, measuring & recording, and using scientific equipment) – Cells and Organ systems (e.g., microscopes, skeleton, muscles & circulation) – Basic particle theory that underpins all matter (e.g., particle model & states of matter)

	Half Term 2	– Various ways to separate compounds (e.g., filtration, distillation, & chromatography) – How to safely handle hazardous substances – Energy resources (e.g., fossil fuels, solar cells, wind & water)
Term 2	Half Term 3	– Animal Reproduction (e.g., fertilisation, pregnancy, puberty & menstrual cycle) – Chemicals that are commonly used in chemistry, particularly acids and alkalis (e.g., indicators, neutralisation & salts)
	Half Term 4	– How scientific investigations should follow a set structure of steps, including how to make investigations more reliable and valid – Forces (e.g., friction, air resistance & density)
Term 3	Half Term 5	– Plants (e.g., photosynthesis, flowers & seeds, dispersal and food chains) – What the periodic table is and that it is split into different parts (metals/non-metals)
	Half Term 6	– Electricity and magnetism (e.g., series & parallel circuits, magnets and electromagnets) – How scientific investigations should follow a set structure of steps, including how to make investigations more reliable and valid

Curriculum Impact – How will progress be assessed?

– Open book assessment tasks – Progress Review Tests – Interactive online quiz

Super-Curricular Opportunities – Extending Learning

Useful supporting resources:	If a student is really passionate about this subject, they could:	As a parent/carer, I can assist my child in this subject by:
• We build the Cultural Capital of our students by relating what is taught in lessons to real life situations and current developments in scientific understanding	• Attend science club • Watch science documentaries • Read the science pages in daily newspapers and magazines	• Visiting the Science Museum • Visiting the Natural History Museum • Helping the students to make links between what they are learning

• We look at historical developments and the scientists responsible for furthering our understanding through technical innovation • Weekly science club and annual science week • Ecology day – using local natural areas to teach a branch of science and techniques within this field • Discussion of scientific career options within lesson time • Opportunities for visiting venues of scientific interest and science days out	• Use online learning platforms such as: SENECA Learning, BBC Bitesize and The Oak Academy	in science and what are doing at home