Learning Journey – C9 Chemistry of the Atmosphere

What have I done previously in my learning journey?	
Previously….	You have learnt previously about the Earth and the atmosphere. This has involved learning about: • the composition of the Earth • the structure of the Earth • the rock cycle and the formation of igneous, sedimentary and metamorphic rocks • Earth as a source of limited resources and the efficacy of recycling • the carbon cycle • the composition of the atmosphere • the production of carbon dioxide by human activity and the impact on climate.
In this topic…	You will learn that the Earth's atmosphere is dynamic and forever changing. The causes of these changes are sometimes man-made and sometimes part of many natural cycles. Scientists use very complex software to predict weather and climate change as there are many variables that can influence this.

We will develop our learning by studying the following each lesson:	RAG	Skills in Science checklist
C9.01 Evolution of the Atmosphere • Describe the structure of the earth. • Describe the current theory of how scientists think the atmosphere evolved. • Recall the approximate proportions of gases in the atmosphere today.		☐ Scientific Methods ☐ Practical ☐ Number Skills ☐ Application ☐ Communication
C9.02 Greenhouse Gases and Carbon Footprints • Recall how greenhouse gases keep the earth warm. Describe how human activity is leading to climate change. • Describe what a carbon footprint is. • Evaluate the reasons for trying to reduce carbon footprints.		☐ Scientific Methods ☐ Practical ☐ Number Skills ☐ Application ☐ Communication
C9.03 Atmospheric Pollutants • Describe what is produced when fossil fuels are burnt. • Describe the causes and effects of acid rain.		☐ Scientific Methods ☐ Practical ☐ Number Skills ☐ Application ☐ Communication

Key Vocabulary

Atmosphere	**Volcano**	**Algae**	**Photosynthesis**	**Greenhouse effect**	**Climate change**	**Carbon dioxide**	**Carbon footprint**	**Combustion**
Particulates	**Carbon monoxide**	**Acid rain**						

Future Learning	Further studies in AS level Biology looks at the impact of different factors on biodiversity within a habitat. Some of these factors may be cause by human activity, for example the burning of fossil fuels and the release of atmospheric pollutants.
In careers	The problems caused by increased levels of air pollutants require scientists and engineers to develop solutions that help to reduce the impact of human activity.