Year 8 Science: Topic 8B. Respiration

What have I done previously in my learning journey?	
Previously….	**In year 7 you will have learned about cells as the basic building blocks of all life, as well as how the digestive and respiratory system helps keep us alive.**
This year…	**We will build upon this by looking at how the body uses the products of digestion to fuel our everyday activities, exercise and even our sleep!**

We will be learning about…

Everyone has felt like they have had "low energy" days- but where do or bodies actually get "energy" from? Food and Oxygen play a crucial role in fuelling our bodies to do anything and everything, and in this unit we will look at how our bodies use these reactants to release energy.

We will then move onto look at what our bodies do when there is not enough oxygen available and how different athletes will release energy in slightly different ways depending on the sport they play.

Key Practicals: The effect of exercise on the body; Proving the products of respiration

We will develop our learning by studying the following each lesson:	**RAG**	**Skills in Science Ticklist**
8B.01 Respiration Recall the aerobic respiration equation Describe how glucose gets into cells and where respiration happens To be able to Apply the respiration equation to everyday scenarios		☐ Scientific Methods ☐ Practical ☐ Number skills ☐ Application ☐ Communication
8B.02 – Anaerobic respiration in Humans Recall the aerobic respiration equation (In humans) Describe the conditions that will cause Humans to do Anaerobic respiration Explain which sports are likely to use aerobic or anaerobic respiration		☐ Scientific Methods ☐ Practical ☐ Number skills ☐ Application ☐ Communication
8B.03- Fermentation Recall the Anaerobic respiration equation in plants Investigate the effects of temperature on the rate of anaerobic respiration in yeast Explain the applications of anaerobic respiration in Plants		☐ Scientific Methods ☐ Practical ☐ Number skills ☐ Application ☐ Communication

Key Vocabulary

Mitochondria	Respiration	Aerobic	Anaerobic	Carbon Dioxide	Oxygen	Ethanol	Metabolism	Lactic Acid

What's in it for you for your future learning journey?	
In life……	**Everyone gets hungry, and whether you are looking at getting into sports nutrition or want to understand why you get sore after exercise, this unit will give you a better understanding of how your body is using the food you eat.** **Looking at anaerobic respiration in plants is the fundamental science in making certain foods, such as baking and brewing alcoholic beverages. Who knows, you could be the next Star baker of the Great British Bake off!**