Science - Curriculum Overview -SUMMER 2027

Year 7	
What are you teaching? Summer 1	**What are you teaching? Summer 2**
Acids & Alkalis	**Reproduction / Space**
Why have you chosen to teach this unit, and this time?	
- The culmination of simple chemical reactions is the reactions that is visible. Students learn that with indicators, the neutralisation reaction is one that can not only be seen but be quantified using a scale. - Students will study reproduction which is how they are created and then consider space which will be that start of the creation of the universe.	
What are the 3 key pieces of knowledge you will have expected students to acquire by the end of this unit?	
- Acids are the chemical opposites of alkalis - Acidicity and alkalinity can be quantified - How reproduction produces offspring.	
Is this topic on the National Curriculum? Yes **Will all staff be teaching this unit?** Yes	

Year 8	
What are you teaching? Summer 1	**What are you teaching? Summer 2**
Metals and Acids / The Earth	**Inheritance / Motion and Pressure**
Why have you chosen to teach this unit, and this time?	
Revisiting the chemical reactions unit but deepening student understanding to ensure that they are able to neutralise and reverse some reactions. How metal react with acid and where the metals come from. The basis for the understanding of how to extract metals from the Earth	
What are the 3 key pieces of knowledge you will have expected students to acquire by the end of this unit?	

- metal + Acid ⟶ Salt + Water is a neutralisation reaction
- That metals react with acid to produce a salt and hydrogen - That the Earth is made of layers that have different properties.
Is this topic on the National Curriculum? Yes **Will all staff be teaching this unit?** Yes

Year 10	

~~What are you teaching? Summer 1~~	~~What are you teaching? Summer 2~~
Year 9	
What are you teaching? Summer 1	**What are you teaching? Summer 2**
Quantitative Chemistry / Particle Model of matter	**Bioenergetics**
Why have you chosen to teach this unit, and this time?	
It is the next stage in the understanding that chemical reactions are quantified, that they react with different amounts of reactants to give different amounts of products just like a recipe to make something. It enables students to begin to look at how a substance is made up of particles and how those particles behave and interact with each other. That energy being taken in and released forms the basis of life processes previously studied.	
What are the 3 key pieces of knowledge you will have expected students to acquire by the end of this unit?	
- Quantifying chemical reactions and understanding why chemical equations studied in year 8 are written as they are. - That article diagrams can be drawn to show the arrangement of particles in the states of matter. - That photosynthesis and respiration are the chemical opposites of each other.	
Is this topic on the National Curriculum? No **Will all staff be teaching this unit?** Yes	

● Organic Chemistry /Ecology	Atmosphere project
Why have you chosen to teach this unit, and this time?	
- Living things and how they affect the planet	
What are the 3 key pieces of knowledge you will have expected students to acquire by the end of this unit?	

- **That organic materials in chemistry are carbon based**
- **That preservation of life (SUSTAINABILITY) means keeping everying in balance.**
- **That humans are adversely affecting the atmosphere and to understand the effects of that change.**

Is this topic on the National Curriculum?

Yes

Will all staff be teaching this unit?

Yes

Year 11	
What are you teaching? Summer 1	**What are you teaching? Summer 2**
Reteaching and revising	**JIT REVISION**
Why have you chosen to teach this unit, and this time?	
Completed teaching	
What are the 3 key pieces of knowledge you will have expected students to acquire by the end of this unit?	
- **Review previous topics** - **To remember more details of previous topics** - **To feel more prepared for the exams**	

Is this topic on the National Curriculum?

No

Will all staff be teaching this unit?

Yes