

Subject	Year	Term
Science	8	2
Topic		
8C2 Chemical reactions and the Earth		
Content (Intent)		
Prior Learning (Topic), KS2 curriculum Y3 Rocks, KS3 8C1 (term one) Displacement reactions. • The Earth's Structure and atmosphere • The Rock cycle • The Earth as a resource • The Carbon Cycle • Chemical reactions • Combustion and oxidation reactions • Thermal decomposition • Displacement reactions • pH scale and indicators • Reaction of acids • Catalysts Future Learning (Topic) Y9 C7 Organic chemistry, C10, Using resources, Y10 C6 Rate and extent of chemical change, Y11 C4 Chemical changes, Y12 2.1.4 Acids, Y13 5.1.3 Acids, bases and buffers		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
Practical work: • Speed of cooling vs size of crystals • Examples of weathering • Examples of chemical reactions (burning wood, lead nitrate + potassium iodide, Mg and $\text{CaCO}_3 + \text{HCl}$) • Rusting in different environments • Thermal decomposition of CaCO_3 • Identifying Unknown metal using displacement reactions • pH testing of household and lab solutions • Neutralisation of NaOH and HCl • Reactions of metals with acid • Catalytic breakdown of H_2O_2 using MnO_4^-, test for O_2 gas produced. Written Notes on book. Research on the rock cycle.	- 2 x standard homeworks (Level given. Written feedback. Response expected.) -1 x end of topic test (Level given. Verbal feedback to class and individuals.)	

How can parents help at home?

Look at the topic specific resources on the VLE

Use appropriate youtube channels: cognito, primrosekitten, khan academy, freesciencelessons.

Take an interest! Ask your children what they have learnt and be curious about their learning.

Helpful further reading/discussion

Reading

Vocabulary Lists

crust
mantle
core
atmosphere
weathering
erosion
displacement
combustion
acid
alkali
indicator
igneous
neutralisation
sedimentary
reactivity series
metamorphic
catalyst

Careers Links

Geologist
Environmental scientist
Farming