Handsworth Grange
Community Sports College

YEAR 8 SCIENCE LEARNING JOURNEY

Y8

Year 7 Review

Topic 1 – Chemical reactions
L1 Hazard symbols and signs of chemical reactions
L2 Reactivity Series
L3 Oxidation reactions
L4 Reduction reaction
L5 Displacement reaction
L6 Thermal decomposition

Topic 2 – Homeostasis
L1 Endocrine system
L2 Diabetes
L3 Adolescence
L4 Reproductive systems
L5 Menstrual cycle
L6 Fertilisation
L7 Gestation
L8 Effects of lifestyle on pregancy

Topic 3 – Exploring Space
L1 - What is the Universe?
L2 - Lifecycle of a Star
L3 - The Big Bang Theory
L4 - Satellites and Telescopes

Topic 4 – Acids & Bases
L1 The pH scale
L2 Measuring pH
L3 What are acids, alkalis & bases (formula)

Topic 4 – Acids & Bases
L4 Neutralisation reactions
L5 Neutralisation- Titration

Topic 5 – Inheritance
L1 DNA
L2 Inheritance
L3 Variation
L4 Adaptation
L5 Evolution
L6 Fossils
L7 Extinction

Assessment Week
Assessment, Feedback Reteach

Topic 6 – Magnetism
L1 - What is a Magnet?
L2 - Investigating Magnetism
L3 - Electromagnets
L4 - The Electric Motor

Assessment Week
L1 Reactions of acids with metals
L2 Reactions of acids with metal oxides

Topic 7 – Reactions of Metals
L3 Reactions of acids with metal carbonates
L4 Making copper sulfate crystals part 1
L5 Making copper sulfate crystals part 2

Topic 8 – Ecology
L1 Food chain
L2 Sampling - quadrats
L3 Water cycle
L4 Carbon cycle
L5 Global warming - part 1
L6 Global warming - part 2
L7 Deforestation
L8 Food security

Topic 9 – Whats the Matter?
L1 - History of the Atom
L2 - States of Matter
L3 - Density
L4 - SLH

Topic 10 – Separating Compounds
L1 Where do metals come from
L2 Electrolysis of molten compounds
L3 Electrolysis of aqueous solutions

Assessment Week
Assessment Feedback Reteach

Topic 10 – Separating Compounds
L3 Uses and extraction of aluminium
L4 Uses of electrolysis
L5 Electroplating report

Science STEM Week
STEM Project 1

Topic 11 – Plants
L1 Importance of plants in the ecosystem
L2 The structure of the leaf
L3 The roots
L4 Stems and transpiration stream

Topic 12 – Energy Resources
L1 - GPE and KE
L2 - Work Done (Power)

Topic 12 – Energy Resources
L4 - Non-Renewable Energy
L5 and L6 - Generating Electricity Presentation

Topic 13 – Energy Changes
L1 Reversible & Irreversible reactions
L2 Energy changes in reactions
L3 Identifying exothermic and endothermic reactions
L4 Uses of exothermic and endothermic reactions
L5 Investigating energy changes in Chemical reaction Part 1
L6 Investigating energy changes in Chemical reaction Part 2

Catch Up Week

Topic 14 – Plant Reproduction
L1 Flowers
L2 Pollination
L3 Fertilisation
L4 Germination - Part 1
L5 Germination - Part 2
L6 Seed dispersal

Topic 15 – EM Waves
L1 - Waves Recap
L2 - EM Spectrum
L3 - Uses of EM Spectrum
L4 - White Light
L5 - Lenses

Topic 16 – The Effect of Forces
L1 - Forces Recap

Y7 Assessment Week

Y9

Topic 16 – The Effect of Forces
L2 - Gas Pressure
L3 - Work Done
L4 - Moments
L5 - Elasticity

Feedback & Reteach

Science STEM Week
STEM Project 1
STEM Project 1
STEM Project 1
Science STEM trip
STEM Project 2 - beyond NC
STEM Project 2 - beyond NC