SKILLS IN SCIENCE

The disciplinary knowledge of a great scientist

Understanding & applying scientific symbols

Accurately plot, interpret & analyse appropriate graphs

Identify & describe key concepts across scientific fields

Apply scientific rules to specific scenarios or situations

Accurately draw, label, interpret & explain scientific diagrams

Describe & justify the structure, process, properties or state of something

Accurately write word & symbol equations for a variety of scientific processes

Accurately convert various units of measurement

Represent processes in a range of scientific fields

Make informed predictions about the outcomes of processes & reactions in a variety of scientific fields

Correctly measure, calculate & rearrange scientific formulae & equations for specific purposes

Investigate, explain & evaluate the cause & effect of entities & processes in different scientific fields

Understanding & using scientific terminology in the correct context

Accurately use mathematical skills to solve problems & make predictions

Explain & evaluate similarities/ differences between entities, parts & processes across scientific fields

Use scientific equipment &processes accurately & safely

Conduct & accurately record scientific investigations, & draw valid conclusions

Evaluate the validity & reliability of investigations

KS3 Science Learning Journey

Physics Transition Unit

Acids and Alkali

Forces 2

Biology Transition Unit

Chemistry Transition Unit

The Body

Space

Earth and the Environment

Nutrition and Digestion

Plants and The Environment

Electricity

Lab Skills

Forces

Atoms and Elements

Reproduction

Space

Lab Skills

States of Matter

Building Blocks

START HERE!

GCSE COMBINED SCIENCE Learning Journey

CB7: Animal Coordination, Control and Homeostasis

CB8: Exchange & Transport in Animals

CP14: Forces & Matter

CB9: Ecosystems & Material Cycles

CC16: Fuels

CC17: Earth & Atmospheric Science

CP12: Particle Model

CP11: Electromagnetic Induction

CP10: Magnetism & the Motor Effect

CP9: Electricity & Circuits

CC15: Heat Energy Changes in Chemical Reactions

CC14: Rates of Reaction

CB6: Plant Structures & their functions

CC12: Reversible Reactions & Equilibria

CC11: Obtaining & using Metals

CC10: Electrolytic Processes

CC13: Groups in the Periodic Table

CB5: Health & Disease

CC9: Calculations involving Masses

CP6: Radioactivity

CP7-8: Forces Doing Work & their Effects

CP5: Light & Electromagnetic Spectrum

CP4: Waves

CC8: Acids & Akalis

CC7: Types of Substances

CC6: Covalent Bonding

CC9: Calculations involving Masses

CC5: Ionic Bonding

CC! & CC2:States of Matter and Methods of Separating & Purifying Substances

CB4: Natural Selection & Genetic Modification

CB1: Key concepts in Biology

CB2: Cells and Control

CB3: Genetics

CC4: Periodic Table

CC3: Atomic Structure

CP0: Key concepts of Physics

CP1: Motion

CP2: Forces

CP3: Conservation of Energy

Teacher A

Teacher B

START HERE!

GCSE CHEMISTRY Learning Journey

Topic 9a: Organic Chemistry (CC22-24)

Topic 9b: Qualitative Chemistry (CC25-26))

Topic 7: Rates of Reaction (CC18-19)

Topic 8: Atmospheric & Earth Science (CC20-21)

Topic 6: Groups in the Periodic Table (CC17)

Topic 4: Obtaining & using metals (SC9; SC12-13)

Topic 5: Quantitative Chemistry (SC14-16)

Topic 2: Separating mixtures and States of Matter (SC 1-2)

Topic 3: Chemical Change - Acids & Alkalis (SC8; SC10-11)

Topic 1c: Key concepts
Moles & concentration (SC9) & Covalent & Metallic Bonding (SC6-7)

Topic 1a: Key concepts
Atoms (SC3) & Periodic Table (SC4)

Topic 1b: Key concepts
Ionic compounds & bonding (SC5)

START HERE!

GCSE PHYSICS Learning Journey

Topic 15: Forces & Matter (SP15)

Topic 14: Particle Model (SP14)

Topic 12: Magnetism & the Motor Effect (SP12)

Topic 13: Electromagnetic Induction (SP13)

Topic 11: Static Electricity (SP11)

Topic 8: Energy (SP8)

Topic 9: Forces doing work (SP9)

Topic 7: Astronomy (SP7)

Topic 10: Electricity (SP10)

Topic 5: Light & the Electromagnetic Spectrum (SP5)

Topic 6: Radioactivity (SP6)

Topic 4: Waves (SP4)

Topic 1: Key concepts in Physics & Motion (SP0; SP1)

START HERE!

Topic 2: Motion & Forces (SP2)

Topic 3: Conservation of Energy (SP3)

GCSE BIOLOGY Learning Journey

Topic SB9: Ecosystems & Material Cycles

Topic SB8: Exchange & Transport in Animals

Topic SB7: Animal Coordination, Control & Homoeostasis

Topic SB5: Heath, Disease and Medicine

Topic SB6: Plant Structure & Function

Topic SB4: Natural Selection & Genetic Modification

Topic SB3: Genetics

Topic SB1: Key concepts in Biology

Topic SB2: Cells & Control

START HERE!