Key Stage 3 Learning Journey – YEAR 7

YEAR 9

Revision---End of year exam

Astronomy

The solar system
The night sky
Earth- Seasons

Energy

Energy & Temperature
Energy adds up (Conservation)
Work, Energy and Machines
Energy & Power
Energy resources
Energy transfer - particles
Conduction & Convection
Energy & food
Radiation

Separating techniques

Solutions
Filtration
Chromatography
Mixtures
Solubility
Evaporation and distillation

Acids, alkalis and metals

Neutralization
Making salts
Metals & acids
Indicators and pH
Acids and alkalis

Health and lifestyle

Polymers
Smoking and pregnancy
Nutrients
Food tests
Alcohol
Smoking
Drugs

Waves

Waves
Light
The eye
Reflection
Refraction
Sound and energy transfer

Metals and acids

Metals & water
Metals & oxygen
Hydrochloric acid
Metal displacement
Sulfuric acid

Ecosystems and processes

Disruption to food chains and webs
Ecosystems
Food chains and webs
Plant minerals
Leaves
Anaerobic Respiration
Aerobic Respiration
Photosynthesis
Chemosynthesis

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The Earth

Types of rock
The rock cycle
Climate change
The earth and its atmosphere
Recycling
Sedimentary, igneous and metamorphic
The carbon cycle

Reactions

Word equations
Endothermic and exothermic reactions
Thermal decomposition
Chemical reactions

Adaptation and inheritance

Competition and Adaptation
Inheritance
Extinction
Continuous and discontinuous variation
Natural selection

The Periodic table

Group 7 – the halogens
Group 0 – the noble gasses
Group 1 – alkali metals

Reproduction

Gestation
Menstrual cycle
Gametes
Pollination
Seed dispersal
Fertilization

Electricity & Magnetism

Circuits & current
Static electricity
Magnets and magnetic fields
Uses of electromagnets
Current
Voltage
Series and parallel

Elements & compounds

Elements
Chemical formulae
Compounds
Metals and non-metals

Organisation of body systems

Gas exchange
Breathing
Levels of organisation
The muscular system
Role of the villi and bacteria
The skeletal system
movement: Joints

Forces

Stretching & squashing
Mass and weight
Balanced & unbalanced forces
Identifying forces
Forces at a distance

States of Matter

Diffusion
Boiling
The particle model
HSW: Changes of State practical
Melting & Freezing
States of matter

Cells

Mitochondria and respirations
Cells – building blocks
Observing cells
Plant and animal cells
Specialised cells
Unicellular organism
Movement of substances
Diffusion

Skills in science

Bunsen Burner license
Baseline
Graph skills

YEAR 7

CROSS-CURRICULAR LINKS

Body systems	PE
Reproduction	PSHE
Health & Lifestyle	PSHE
C, N and H_2O cycle	Geography
Data analysis	Mathematics
Photosynthesis	Chemistry
Diffusion & Osmosis	Chemistry

Calculating mass	Mathematics
The Earth	Geography
Atomic models	Physics
Climate change	Biology
Materials	Art & Design
Electricity	Engineering
Pressure	Chemistry

Collaboration Opportunity Respect Excellence