

Key Vocabulary Tracker

Science

Year	Class	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
1	Trent	Animals including humans: Body parts Growth Investigate Explore Experiment	Plants: Growth Sunlight Water Oxygen Seed Stem Leaves Root Flower bud	Seasonal changes: Seasons Months of the Year Weather Northern Hemisphere Southern Hemisphere Record	Everyday materials: Materials Grouping Sorting Properties	Pushes and Pulls: Explore Movement Push Pull	Light and Dark: Light Reflective Dark Dull Sun
2	Trent	Uses of everyday materials: Materials Properties Heating Cooling	Animals including humans: Animals Pets Growth Life Cycle	Plants: Seed Pollination Growth Sunlight Water Oxygen	Living things and their habitats: Habitats Depend Trees Oxygen	Healthy Eating: Healthy Eating Breakfast Dairy Food preparation	Recycling and the environment: Environment Recycling Benefits
1	Leamington / Hampden	Plants and Animals in the Local Environment: Environment Habitat Requirements for life	Using Electricity: Electricity Circuits Conductors Insulators Dangers	Characteristics of Materials: Materials Properties Explore Testing Suitability Purpose	Forces and magnets: Magnetism Resistance Attract Repel Poles	Rocks and soils: Sedimentary Igneous Metamorphic Properties Purpose	Animals including humans: Growth Development Reproduction Nutrition Healthy Lifestyle

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2	Leamington/ Hampden	Sound: Waves Vibration Medium Pitch Volume Sound proofing	Light and shadow: Waves Light Shadow Earth Rotation Opaque Transparent	Animals including humans: Skeleton Bones Joints Muscles Movement	Plants: Growth Sunlight Water Oxygen Seed Stem Leaves Root Flower bud	State of matter: Solid Liquid Gas Water Cycle	Living things and their habitats Variation: Habitats Characteristics Comparison Similarities Differences
1	Oval / Old Trafford/ Wembley	Earth and space: Earth Rotation Seasons Moons orbit Solar System	Properties of materials: Solid Liquid Gas Properties	Living things and their habitats: Habitat Environment Adaptations	Electricity and Magnetism: Electricity Circuits Conductors Insulators Dangers	Animals including humans: Healthy Lifestyle Heart Rate Medicine Tobacco Drugs	Light and Sound: Waves Light Sound Vibrations Transverse Longitudinal
2	Oval / Old Trafford/ Wembley	Evolution and inheritance: Fossils Evolution Inheritance Variation Adaptation	Separating Materials: Mixtures Separation Filter Chromatography Dissolve Evaporate	Forces: Resistance Gravity Up thrust Friction Attract Repel	Plants: Seed Stem Leaves Root Flower bud Photosynthesis	Living things and their habitats Variation and Classification: Classification Characteristics Comparison Similarities Difference	Heating and cooling: Temperature Heating Cooling Conduction Convection

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1	Year 8	<p>Cells and Organisation The skeletal and muscular systems:</p> <p>Microscope Slide Cell Organelles Skeleton Bones Joints Muscle</p>	<p>Atoms, elements and compounds Chemical reactions:</p> <p>Matter Element Atom Molecule Compound</p>	<p>Motion and Forces:</p> <p>Balanced Unbalanced Resultant Force Weight Air resistance Friction Speed Gravity</p>	<p>Gas exchange systems, Nutrition and digestion:</p> <p>Respiratory system Lungs Inhale/Exhale Digestive system Balanced diet Bacteria</p>	<p>Energetics The periodic table:</p> <p>Periodic table Metals Non-metals Halogens Groups Periods Reaction Reactive Exothermic Endothermic Chemical Bond Energy</p>	<p>Electricity and electromagnetism Waves:</p> <p>Transverse Longitudinal Wavelength Amplitude Frequency Pinna Cochlea Retina Optic nerve Photoreceptors Reflect Refract Electrons Electrostatic Attract Repel</p>
1	Live and Living Skills	<p>Using household tasks - Electricity:</p> <p>Electricity Switch Household Tasks Jobs Safety Storage</p>	<p>Recycling - Materials:</p> <p>Recycling Waste Non-recyclable Materials Charity shops Charity bags</p>	<p>Introduction to health and safety - Science safety:</p> <p>Health Safety Workplace Hazards</p>	<p>Food storage and safety - Healthy eating</p> <p>Food Safety Storage Hygiene Fresh Gone -off</p>	<p>Making a healthy meal - Healthy eating:</p> <p>Meal Healthy Plan Recipe</p>	<p>Plants:</p> <p>Plants Environment Issues Structure Pollination Seed dispersal Photosynthesis Natural Habitats Survival</p>



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WJEC	Year 1	Year 2	Year 3
14-16	<p>Working with Electrical Circuits:</p> <p>Components Electrical Circuit Series Parrallel Risk</p> <p>Variation and adaptation:</p> <p>Organisms Environment Adapted Factors Natural External Food chain Predator Prey Habitat</p> <p>Making useful compounds</p> <p>Chemical reactions Compounds Chemical change Chemical notation</p>	<p>Renewable energy:</p> <p>Sources Renewable Non-renewable Demands Efficiency</p> <p>Energy in the home and workplace:</p> <p>Energy Principles Transferred Electrical appliances Power consumption Waste Reduce</p> <p>The science of light and sound:</p> <p>Light Sound Properties Investigate Equipment Record Observations Conclusions Communication</p>	<p>Food and health:</p> <p>Healthy Diet Nutritional Dietary Dishes / meals Recipes</p> <p>Science and the human body:</p> <p>Major body systems Functions Structure Health Factors Health Ill health Testing</p> <p>Science and our universe:</p> <p>Structure Galaxies Solar system Sun Planet Moon Craters</p>



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	<p>Laboratory Preparation Data</p> <p>Science and the plant world:</p> <p>Conditions Growth Plants Germination Investigations Function Reproduction Female / male</p>	<p>Introduction to land maintenance:</p> <p>Purpose Tools Design Planting Calendar Time Tests</p>	<p>Electromagnetic spectrum Space Telescopes Atmosphere</p> <p>Science: Health and safety:</p> <p>Hazards Symbols Equipment Safely Hazardous substances Risks Fire safety Dangers Actions</p>
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1	Twickenham Entry level certificate	Biology - Key Concepts in Biology: Magnification Resolution Prokaryotic Eukaryotic Adaptation	Biology - Key Concepts in Biology: Enzyme Substrate Active site Complex Molecule Soluble Particles Diffusion Concentration Gradient Active Transport	Biology - Cells and control Nucleus Cell membrane Cytoplasm Animal cells Chloroplast Plant cells Cell differentiation Specialised cells Sperm cells Egg cells Nerve cells Muscle cells	Biology - Natural Selection Darwin's theory Evolution Natural selection Emergence Resistant organisms Human evolution Fossils Stone tools Dated Environment	Biology - Plants and their Functions Plants Green algae Organisms Photosynthesis Photosynthetic organisms Producers Biomass Light energy React Carbon dioxide Water Glucose Oxygen Equation Transport Mineral ions Transpiration Phloem Sucrose	Biology - Health, Disease and the development of medicine Health Communicable Non-communicable diseases Human diseases Interaction Factors Diet Lifestyle Genetics Exercise Obesity BMI Calculations Cells Cell division Circulatory system Cardiovascular system Medication Surgical procedures
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Key Vocabulary Tracker

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	<p>Chemistry - Key Concepts in Chemistry:</p> <p>Atom Electron Neutron Proton</p>	<p>Chemistry - Key Concepts in Chemistry</p> <p>States of Matter</p> <p>Methods of separating and purifying</p> <p>Substances:</p> <p>Isotope Mass number Periodic Table Element Compounds Mixture Physical property Filtration Crystallisation Chromatography</p>	<p>Chemistry - Bonding</p> <p>Ionic bonds</p> <p>Metal atom Non-metal atom</p> <p>Transfer Electrons</p> <p>Positive and negative ions</p> <p>Structure Compound</p> <p>High melting points and boiling points Energy Strong forces</p> <p>Solubility Conduct electricity Covalent bond Simple molecules Properties</p> <p>Low melting points and boiling points Weak forces</p> <p>Intermolecular forces Simple polymers</p>	<p>Chemistry - Acids and Alkalis</p> <p>Neutral solution has a pH of 7</p> <p>Acidic solutions have lower pH values</p> <p>Alkaline solutions higher pH values</p> <p>Indicators Litmus pH indicator paper/universal indicator solution</p> <p>Hazard symbols Danger</p> <p>Safe working Precautions Substances</p>	<p>Chemistry - Calculations involving masses</p> <p>Structure Atom Nucleus Protons Neutrons</p> <p>Relative charge Relative mass of: Electron Element Atomic number Mass number</p>	<p>Chemistry - Groups in the Periodic Table</p> <p>Mendeleev Elements Properties Compounds</p> <p>Increasing Atomic number</p> <p>Rows Vertical columns Groups Position</p>
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Key Vocabulary Tracker

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		Physics -Key concepts in Physics Système Internationale d'Unités (SI units) Metre (m) Kilogram (kg) Seconds (s) Ampere (A) Kelvin (K) Mole (mol) Motion Scalar quantity Vector quantity Displacement/distance Velocity/speed Acceleration	Physics - Motion and Forces Stopping distance Mass Speed Reaction time Condition State Friction Factors Unbalanced forces Position Shape Balanced/ zero Speed up Slow down	Physics - Conservation of Energy Energy sources Fossil fuels Nuclear fuel Bio-fuel Wind Hydro-electric The tides The Sun Renewable or non-renewable	Physics -Waves Transfer Energy Information Frequency Wavelength Amplitude Wave speed Refraction Vacuum Electromagnetic spectrum Materials	Physics -Light and electromagnetic Spectrum Electromagnetic Spectrum Radiation Radio waves - broadcasting, communications and satellite transmissions Microwaves - cooking, communications and satellite transmissions Infrared - cooking, thermal imaging and television remote controls Visible light - vision, photography and illumination	Physics - Electricity Diagrams Electric circuits Symbols Cells (including batteries) Switches Voltmeters Ammeters Lamps Series and parallel circuits Measure Current Voltage
	GCSE	Biology - Key Concepts in Biology (B1): Magnification Prokaryotic Eukaryotic	Biology - Key Concepts in Biology (B1): Enzyme Substrate	Biology - Natural selection and genetic modification (B3&4)	Biology - Natural selection and genetic modification (B3&4)	Biology - Ecosystems and material cycles (B9)	Biology - Plant structures (B6) Photosynthetic organisms



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		Adaptation	Active site Diffusion Concentration Gradient Osmosis Partially permeable Active transport	Darwin's theory of evolution by natural selection Resistant organisms Antibiotic resistance in bacteria human evolution Fossils: Ardi from 4.4 million years ago Lucy from 3.2 million years ago Leakey's discovery of fossils from 1.6 million years ago Stone tools Dated Environment Genetic analysis Three domains Selective breeding Genetic engineering Desirable characteristics Restriction enzymes Ligase	Darwin's theory of evolution by natural selection Resistant organisms Antibiotic resistance in bacteria human evolution Fossils: Ardi from 4.4 million years ago Lucy from 3.2 million years ago Leakey's discovery of fossils from 1.6 million years ago Stone tools Dated Environment Genetic analysis Three domains Selective breeding Genetic engineering Desirable characteristics Restriction enzymes Ligase Sticky ends Vectors	Organisms Populations Communities Abiotic and biotic factors Interdependence Parasitism Mutualism Field-work techniques Quadrats Belt transects Local and global biodiversity Cycle Carbon cycle Water cycle Nitrogen cycle	Producers Biomass Endothermic reaction Light energy Carbon dioxide Water Glucose Oxygen Rate Light intensity Inverse square law calculation Xylem Phloem Transport Sucrose Transpiration Translocation Environmental factors
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Key Vocabulary Tracker Science

				Sticky ends Vectors			
	Chemistry -Key concepts in Chemistry Atomic Structure (C3): Atom Electron Neutron Proton Particle model Physical changes Melting point Boiling point	Chemistry States of Matter (C1) Methods of separating and purifying Substances (C2): Isotope Mass number Periodic Table Element Compounds Mixture Physical property Filtration Crystallisation Chromatography	Chemistry - The Periodic Table (4): Ores Reactants Products Metal oxides Oxidation Reduction	Chemistry - Obtaining and using metals (C11): Alkali metals Group 1, 7 and 0 Melting point Boiling point Displacement Volume Concentration Temperature Surface area Pressure	Chemistry - Reversible reactions and Equilibria (C13): Exothermic Endothermic Reactants Products Activation energy Reaction profile Crude oil Natural gas Hydrocarbons Fractional Distillation Carbon monoxide Toxic	Chemistry - Groups in the Periodic Table, Rates of Reaction, Heat Energy Changes in Chemical reactions (C13, 14 & 15) Cracking Greenhouse effect Greenhouse gas Global warming	
	Physics - Motion (P1) Motion and forces (P2) Système Internationale d'Unités (SI units) Metre (m) Kilogram (kg) Seconds (s) Ampere (A)	Physics - Motion and Forces (P2) Force Weight/mass Momentum Energy Velocity Equations Newton's first law / second law	Physics - Energy Conservation (P3) Energy - forces doing work and effects (P7/P8) Gravitational Potential Energy Equations Amounts of energy	Physics - Light and the electromagnetic spectrum (P5) Transverse Vacuum Transfer energy Source Observer	Physics - Magnetism (P10) Unlike magnetic poles Attract Like magnetic poles Repel Permanent and temporary	Physics- Particle Model, Forces and Matter (P12, 13) Kinetic theory model Different states of matter (solids, liquids and gases) Movement	



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	Kelvin (K) Mole (mol) Scalar quantity Vector quantity Displacement/distance Velocity/speed Acceleration	Diagrams Energy transfers Conservation of energy System changes Dissipated Lubrication Thermal insulation Thermal conductivity Mechanical processes System Force Electrical equipment Heating Measure Joule, J Equations Gravitational PE Calculate Power Rate Gravitational, electrostatic and magnetic fields Vector and scalar quantities Net force Equilibrium	Refraction Matter Radio waves Microwaves Infrared Visible Ultraviolet X-rays Gamma rays Wavelength Frequency Absorb Transmit Refract Reflect Harmful effects	magnetic materials Magnetic field Plotting compasses Current Conductor Distance Solenoid Fleming's left-hand rule Equations	Arrangement Particles Equations Density Atoms Molecules Mass Conserved Changes of state Thermal energy Thermal insulation Pressure Gas Motion Velocity Absolute zero of particles Kelvin and Celsius scales Elastic and inelastic distortion Linear elastic distortion
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				Resultant force Balanced forces Lubrication			
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Revisited - greater depth/ to ensure a secure understanding in more in-depth contexts as pupils progress with their development of knowledge and understanding.