

Science Curriculum 2023-2024

	Year 7			Year 8			Year 9		
	Knowledge and skills	Enrichment	Curriculum links	Knowledge and skills	Enrichment	Curriculum links	Knowledge and skills	Enrichment	Curriculum links
Cycle 1	Topics - Cells, transport, movement, breathing, energy, reproduction, digestion, circulation. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – Medicine, Physiotherapy, Midwife	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. PE – movement, circulation link to fitness DT – links to digestion and food groups.	Topics – Resistance, static, magnets, electromagnets, waves, sound, light. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – Electrician, sound engineer, light technician, power technician	‘Street Science’ for students to take part in experiments at break and lunch. Trips to the Cheltenham Science Festival.	Maths – throughout all topics. Geography – links to growth of plants	Topics – Earth structure, Earth atmosphere, water, carbon, resources, predictions, properties, nanotechnology. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – geologist, chemist, oceanographer, sustainability officer, nanotechnology researcher	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. Geography – links to climate and sustainability. DT – links to using resources and properties.
Cycle 2	Topics – Matter, atoms, periodic table, movement of matter, separating substances, polymers. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – chemical engineer, chemist, product engineer	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. Recognising patterns.	Topics – Diet, blood sugar, infection, treatments, plant reproduction, photosynthesis, plant transport, species. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – medicine, pharmacist, botanist, conservationist	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics.	Topics – Force, speed, energy transfer, acceleration, gravity, Universe, stars. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – engineer, design engineer, astronomer, astrophysicist	‘Street Science’ for students to take part in experiments at break and lunch. Trips to the Cheltenham Science Festival.	Maths – throughout all topics. DT – energy transfers, stress, strain and structures. Links to engineering.
Cycle 3	Topics – Density, pressure, energy, conservation laws, energy transfer, electricity. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – electrician, engineer, scuba diver, vehicle design	‘Street Science’ for students to take part in experiments at break and lunch. Trips to the Cheltenham Science Festival.	Maths – throughout all topics. Using equations. DT – energy transfers linked to cooking process.	Topics – Reactions, salts, products, acids and alkalis, energy transfer, compounds, metals, substances. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – chemical engineer, pharmacist, nanotechnologist	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. DT – electricity, wiring and household skills.	Topics – Species, evolution, evidence, species distribution, biodiversity, energy transfer, climate. Assessment: End of topic, criteria-based questions/tasks to assess knowledge and skills. Careers – conservationist, climate change scientist, government advisor, zoologist	‘Street Science’ for students to take part in experiments at break and lunch. Science society, a club that takes part in events and competitions.	Maths – throughout all topics. Geography – links to climate and sustainability. Sampling techniques.