

Y8 Science

SCIENCE AT YARDLEYS

INTENT: Science helps students gain an understanding of the world around them, from the micro-level of particles and atoms to the macro-level of our expanding universe. It encourages students to question and enquire in order to learn more. We want our students to acquire the scientific knowledge and skills to meet their academic, practical and “real life” challenges of the future.

KS3 SCIENCE

KS3 Science will build on the foundations laid down in KS2 Science. By the end of the year students will know more about world around them. They will do this with a mix of practical and theory-based lessons that focus on ‘everyday’ and interesting phenomena.

YEAR 8

	Light and Sound	Environmental Chemistry	Influences on Life	Electricity and Magnetism	Atmospheric Chemistry	Cycles of Life
SUBSTANTIVE KNOWLEDGE	In this unit students will learn about - <ul style="list-style-type: none"> • How we see • Reflection and Refraction • Dispersion of Light • Sound 	In this unit students will learn about - <ul style="list-style-type: none"> • The structure of the Earth • The Rock Cycle • Natural Disasters • Recycling 	In this unit students will learn about - <ul style="list-style-type: none"> • Diet and Health • The Digestive System • Drugs and Smoking • Pathogens and the body’s defence 	In this unit students will learn about - <ul style="list-style-type: none"> • Electricity including static electricity, voltage, current and resistance • Magnets and Electromagnets 	In this unit students will learn- <ul style="list-style-type: none"> • The composition of the earth’s atmosphere • Global Warming • Acid Rain 	In this unit students will learn- <ul style="list-style-type: none"> • Ecosystems and food chains • Preserving biodiversity
DISCIPLINARY KNOWLEDGE	<ul style="list-style-type: none"> • Identifying Variables • Testing Hypotheses • Recording and displaying data • Interpreting data 	<ul style="list-style-type: none"> • Development of Scientific Theories • Interpreting data • Making models and suggesting improvements 	<ul style="list-style-type: none"> • Making Observations • Interpreting data • Making models and suggesting improvements 	<ul style="list-style-type: none"> • Making Observations • Identifying Variables • Recording and displaying data • Interpreting data 	<ul style="list-style-type: none"> • Making Observations • Identifying Variables • Recording data • Interpreting data • Identify possible errors in investigations • Suggesting improvements to scientific methods • Development of Scientific Theories • Making models and suggesting improvements 	<ul style="list-style-type: none"> • Making Observations • Interpreting data • Making models and suggesting improvements