

SUBJECT: SCIENCE	TEACHERS: Miss L. Assari, Mrs K. Chaytor, Ms S. Murray, Mrs E. Dias, Ms T. Nicholas, Mrs K. Patel, Mr M. Whelehan	HOD: Mrs A. Phillips
UNIT TITLES	LEARNING OBJECTIVES	ASSESSMENT ASSIGNMENTS
Sound and Light <ul style="list-style-type: none"> – Sound as Energy – Pitch, Loudness, How Sound Travels – The Ear and Hearing – Light as Energy – How Light Travels – Reflection, Refraction, Dispersion of White Light 	<ul style="list-style-type: none"> • Understand that sound and light travel as different types of waves • Understand the characteristics of light and sound waves • To be able to explain how sound is detected by the ear • Types of energy 	<ul style="list-style-type: none"> • End of topic test • Written investigation of light and sound in theatre
Atoms <ul style="list-style-type: none"> – Elements, Classification of Elements, Metals, Non-metals – Making Compounds and Mixtures – Word Equations 	<ul style="list-style-type: none"> • To be able to define what an element is • To be able to identify metals and non-metals • To understand the difference between mixtures and compounds • To be able to understand simple work equations • Conservation of mass in chemical reactions 	<ul style="list-style-type: none"> • End of topic test • Written assessment based on practical demonstration of burning magnesium
Rocks <ul style="list-style-type: none"> – Igneous, Sedimentary and Metamorphic Rocks – Rock Cycle – Weathering of Rocks 	<ul style="list-style-type: none"> • Understand the differences and formation of the three classes of rocks • Understand how rocks can be turned from one type to another 	<ul style="list-style-type: none"> • End of topic test • Creative writing assessment on the rock cycle
Heat <ul style="list-style-type: none"> – Heat and Temperature – Energy Transfer (Conduction. Convection and Radiation) – Change State – Kinetic Theory of Changing State 	<ul style="list-style-type: none"> • Burning fuels • To understand the difference between heat and temperature • To be able to describe the three different methods of energy transfer • To be able to explain in terms of particles what is happening when state changes occur 	<ul style="list-style-type: none"> • End of topic test • Practical assessment on cooling curves
Magnets <ul style="list-style-type: none"> – Special Properties of Magnets – Electromagnets: – Uses of Electromagnets 	<ul style="list-style-type: none"> • To be able to make permanent magnets and electromagnets • To know uses of both types of magnets 	<ul style="list-style-type: none"> • Written assessment on electromagnets
Microbes <ul style="list-style-type: none"> – Micro-organisms: Useful and Not So Useful – Spread of Diseases – Methods of Preventing Diseases – Inoculation (See Citizenship Curriculum) – White Blood Cells 	<ul style="list-style-type: none"> • To understand that micro organisms can be useful as well as cause disease • To understand that the body has its own natural defense 	<ul style="list-style-type: none"> • Data analysis assessment on cholera incidence and epidemiology
Ecology <ul style="list-style-type: none"> – Adaptation of Plants and Animals – Food Chains and Webs – Plants for food – Classification of Animals and Plants – Habitats and their Population – Food Webs – Predator/ Prey Relationship – Pyramids of Numbers and Biomass – Human in food webs – Sustainable development 	<ul style="list-style-type: none"> • To understand how plants and animals are adapted to their natural environment • To be able to construct for food ins and webs • To understand how plants and animals can be classified • To be able to make and understand food webs and how they can be represented • To be able to understand the relationship between species in a habitat 	<ul style="list-style-type: none"> • Investigation of river ecology
Respiration, Food and Digestion <ul style="list-style-type: none"> – Food Groups – Balanced Diet – Digestion of Food – Enzymes – How Glucose is Used in Respiration – Blood Circulation – Lungs – Inhaled and Exhaled Air – Keeping fit 	<ul style="list-style-type: none"> • Understand the foods needed for a balanced diet • Understand how food is digested by enzymes • Understand how glucose is needed to produce energy • Understand how lungs and circulatory system are needed for respiration to occur • Smoking and drugs effect on respiration 	<ul style="list-style-type: none"> • End of topic test
All topics	<ul style="list-style-type: none"> • Consolidation of practical and theoretical knowledge and understanding developed throughout the year 	<ul style="list-style-type: none"> • End of Year Exam