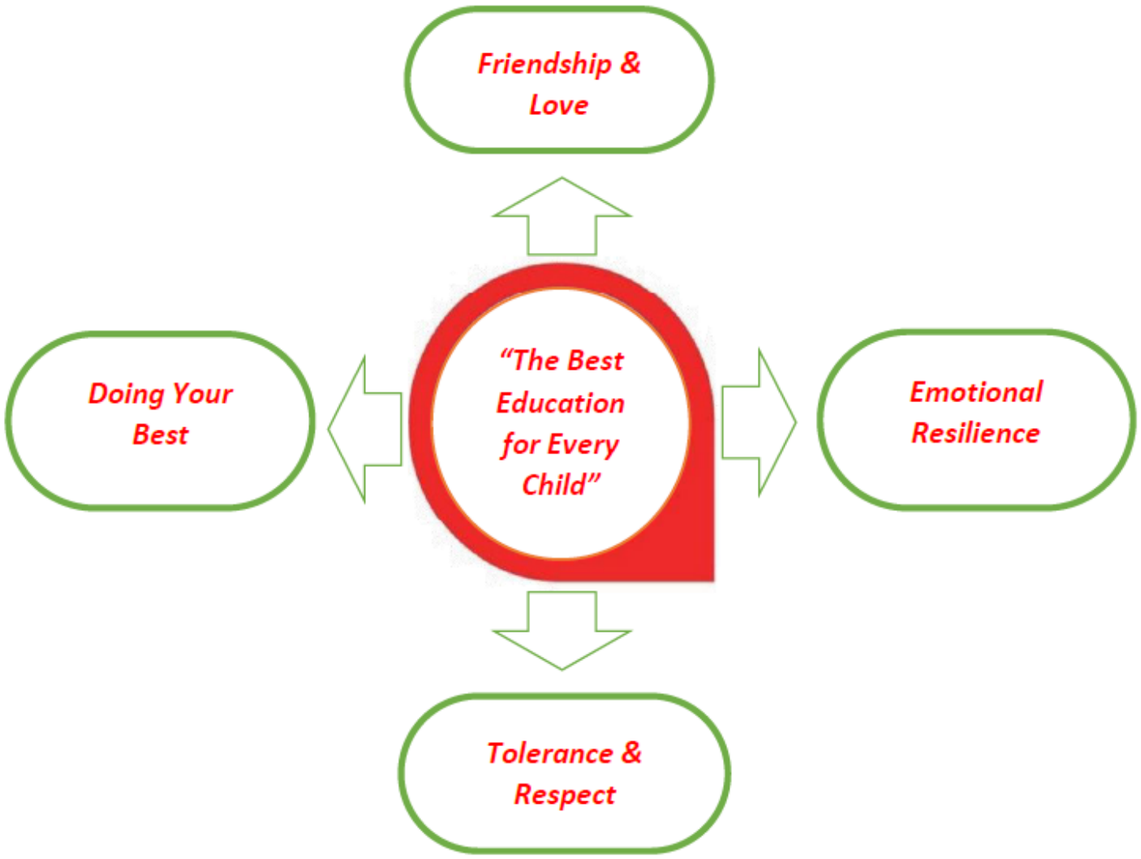
Red Moor School



Science

Schedules & Long Term Plans

Science Faculty

Head of Faculty: Ashley Bradshaw

Date of last review: July 2020

part of ACORN EDUCATION AND CARE

Red Moor School

Science Schedule RMS Foundation Stage (KS1 &2)

Half-Term block	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Notes: Each Half-Term block represents approximately **12** Lessons (**45** minutes each) over 6-7 weeks. Mixed age sets: Year 3/5 curriculum content, stretched to incorporate teaching at the level of Year 4/6 children. In each set, the more difficult material is covered towards the end of the year to ensure progression for both sets of children. In Year 5/6, each set finishes with a 'Second Look Science' block that brings aspects of science together and helps to consolidate learning.					
Schedule A	Title: Magnetic fun and games Context: 6 sessions including working scientifically. Looks at push & pull forces and magnetic force. Banding: SOLAR 1-7 Progression Area: PHYSICS: Forces and magnets.	**Title:** Fit for Success Context: 6 sessions including working scientifically. Focus on food, nutrition and the human skeleton Banding: SOLAR 1-9 Progression Area: BIOLOGY:	**Title:** A world of living thigs Context: 6 sessions including working scientifically. Looks closely at Classification Banding: SOLAR 1-8 Progression Area: BIOLOGY: Living things and their habitats.	Title: Feast Of Flowers, Fruits & Seeds Context: 6 sessions including working scientifically. Focus on plant life cycles. Banding: SOLAR 1-8 Progression Area: BIOLOGY: Life cycles.	**Title:** What's the matter? Context: 6 sessions including working scientifically. Looking at particle theory of solids, liquids and gases. Banding: SOLAR 1-9 Progression Area: CHEMISTRY: States of matter.	**Title:** Sounds spectacular Context: 6 sessions including working scientifically. Understanding how sound travels and is made. Banding: SOLAR 1-9 Progression Area: PHYSICS: sound
Schedule B	Title: This planet rocks Context: 6 sessions including working scientifically. Looking at how rocks, fossils and soil is formed and used. Banding: SOLAR : 2-8 Progression Area: Chemistry & Sci Enq	Title: Shine the light Context: 6 sessions including working scientifically. Looking at how light travels, mirrors and shadows. Banding: SOLAR 2-9 Progression Area: PHYSICS: Light	Title: Habitat Helpers Context: 6 sessions including working scientifically. Looking at habitats, adaptation and pollution. Banding: SOLAR 4-10 Progression Area: BIOLOGY: Animals including humans.	Title: Greatly Green Growers Context: 6 sessions including working scientifically. Focus on plants and their needs and how they work. Banding: SOLAR 1-6 Progression Area: BIOLOGY: Plants an function.	Title: The Circle of Life. Context: 6 sessions including working scientifically. Looking at the digestive system, teeth, food chains and webs Banding: SOLAR 1-9 Progression Area: Biology: Health & Diet and Animals	Title: Electric Personalities Context: 6 sessions including working scientifically. Looking at electrical safety components, circuits and more. Banding: SOLAR 1-7 Progression Area: PHYSICS: Electricity.
Schedule C	Title: Illustrating life cycles. Context: 6 sessions including working scientifically. Looking at the life cycle of plants, birds, mammals, reptiles and sexual and asexual reproduction Banding: SOLAR 1-9 Progression Area: BIOLOGY:	Title: Material Consultants Context: 6 sessions including working scientifically. Properties and changes of materials. Banding: SOLAR 1-7 Progression Area: PHYSICS	Title: The Human Species Context: 6 sessions including working scientifically. Learning about human development, healthy lifestyles and the circulatory system Banding: SOLAR 1-8 Progression Area: BIOLOGY.	Title: Theatre lighting techniques. Context: 6 sessions including working scientifically. Learning bout light, reflections, shadows, convex and concave mirrors and how the human eye sees light. Banding: SOLAR 1-9 Progression Area: PHYSICS	Title: Electric art. Context: 6 sessions including working scientifically. Learning about electricity. Building parallel and series circuits and using variable resistors. Banding: SOLAR 1-9 Progression Area: PHYSICS	Title: Medical Manoeuvres Context: 6 sessions including working scientifically. An opportunity to revise/ cover all 5 previous sessions. Banding: 1-9 Progression Area: BIO. CHEM. PHYS
Schedule D	Title: Special Effects Materials Context: 6 sessions including working scientifically. Banding: SOLAR 5-10 Progression Area: CHEMISTRY	Title: Space Presenters Context: 6 sessions including working scientifically. A close look at the solar system, including, day and night, the planets and the lunar month. Banding: SOLAR 1-9 Progression Area: PHYSICS	Title: Welcome to force-land Context: 6 sessions including working scientifically. Learning about forces in balance, air resistance, friction, water resistance, pulleys and gears Banding: SOLAR 3-9 Progression Area: PHYSICS	Title: The Classification Code Context: 6 sessions including working scientifically. Understanding how to classify animals and plants using keys.. Banding: SOLAR 2-8 Progression Area: BIOLOGY	Title: Survival of the fittest Context: 6 sessions including working scientifically. Learning about Charles Darwin, Evolution, inheritance and fossils. Banding: SOLAR 8-11 Progression Area: BIOLOGY	Title: Sensational Science Context: 6 sessions including working scientifically. Integrated revision Could be taught as a science week Includes more Y5/ 6 content on Properties and changes of materials Banding: SOLAR 1-11 Progression Area: BIO, CHEM & PHY

Red Moor School

Science Schedule RMS Foundation Stage (KS2 & 3)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Half-Term block	Notes: Each Half-Term block represents approximately **18-21** Lessons (**45** minutes each) over 6-7 weeks. There is an end of Year assessment of progress. Following this, remainder part of the Summer Term, is focussed on developing students confidence across the five enquiry types through a variety of enquiry driven activities working scientifically to answer scientific questions. The enquiry types are: observing over time, pattern seeking, identifying-classifying an grouping, comparative and fair testing and researching using secondary sources.					
Schedule A	Title: Working Scientifically, Biology 1.1 Cells & Chemistry 1.1 Particles Context: 20 sessions & 2 checkpoint assessments. Banding: SOLAR 1 - 10. Progression Area: Working Scientifically/ Biology/ Chemistry.	Title: Physics 1.1 Forces & Chemistry 1.2 Elements, Atoms & Compounds Context: 13-15 sessions & 2 checkpoint assessments. Banding: SOLAR 1-9 Progression Area: Physics/ Chemistry& Working Scientifically.	Title: Biology 1.2 Body Systems, Physics 1.2 Sound Context: 13-15 sessions & 2 checkpoint assessments. Banding: SOLAR 1-9 Progression Area: Biology/ Physics & Working Scientifically.	Title: Chemistry 1.3 Reactions & Physics 1.3 Light Context: 15 sessions & 2 checkpoint assessments. Banding: SOLAR 1-10 Progression Area: Chemistry/ Physics & Working Scientifically.	Title: Biology 1.3 Reproduction & Chemistry 1.4 Acids & Alkalis Context: 15 sessions & 2 checkpoint assessments. Banding: SOLAR 2-10 Progression Area: Biology/ Chemistry & Working Scientifically.	Title: Physics 1.4 Space & Skills Project. Context: 13-14 sessions & a checkpoint assessments. Banding: SOLAR 1-10 Progression Area: Physics/ Chemistry/ Biology & Working Scientifically.
Schedule B	Title: Physics 2.1 Electricity & Magnetism, Chemistry 2.1 Periodic Table Context: 17 sessions & 2 checkpoint assessments. Banding: SOLAR 3-10 Progression Area: Physics/ Chemistry & Working Scientifically.	Title: Biology 2.1 Health & Lifestyle, Physics 2.2 Energy Context: 16-18 sessions & 2 checkpoint assessment. Banding: SOLAR 2-10 Progression Area: Biology/ Physics & Working Scientifically.	Title: Chemistry 2.2 Separation Techniques, Biology 2.2 Ecosystem Processes Context: 13-14 sessions & 2 checkpoint assessments. Banding: SOLAR 3-10 Progression Area: Chemistry/ Biology & Working Scientifically.	Title: Physics 2.3 Motion & Pressure, Chemistry 2.3 Metals & Acids Context: 13-14 sessions & 2 checkpoint assessments. Banding: SOLAR 2-10 Progression Area: Physics/ Chemistry & Working Scientifically.	Title: Biology 2.3 Adaptation & Inheritance, Chemistry 2.4 The Earth Context: 14 sessions & 2 checkpoint assessments. Banding: SOLAR 3-11 Progression Area: Biology/ Chemistry & Working Scientifically.	Title: Physics 2.4 Environment, & Skills Project Context: 18 sessions & a checkpoint assessment. Banding: SOLAR 2-11 Progression Area: Physics/ Chemistry/ Biology & Working Scientifically.

Science Schedule RMS Options Stage (KS4)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Half-Term block	Notes: Each Half-Term block represents approximately 12 Lessons (45 minutes each) over 6-7 weeks. Achieving the **ASDAN Short Course,** students have the option of accrediting **up to 60 hours** of science activities. For every 10 hours, you are awarded 1 credit e.g. 10 hours = 1 credit, 30 hours = 3 credits, 60 hours = 6 credits. You will need your own copy of the ‘Short Course’ book and a portfolio (file or folder) into which you will put your evidence. Student chooses either: 4 challenges from ‘A’ or up to 2 challenges from ‘B’ over 10 hours to attain 1 credit. Collate evidence to meet challenge objectives if folder. There are 3 Short Course Skills Sheets. They will help you to Plan your challenges and then Review your work when you’ve completed them e.g. Completed 10 to 20 hours—complete Skills Sheet 1, completed 30 to 40 hours—complete Skills Sheets 1 & 2, completed 50 to 60 hours—complete Skills Sheets 1, 2 & 3. Before submitting your portfolio of evidence and Skills Sheets, fill-in the Summary of Achievement and Personal Statement.					
Schedule A	Title: Module 1—Human Machine Context: ‘A’ challenges include: infrared thermometer, research on the internet, mathematical challenges, surveys and nutritional properties of food. Portfolio of evidence. Banding: SOLAR 2-11 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1 credit.	Title: Module 2—Force and Motion Context: ’A‘ challenges include: mass/ volume investigation, spaghetti tower build, tensile strength, effect in a lift, air resistance, bone strength or care safety. Portfolio of evidence & *Skills Sheet 1 Banding: SOLAR 1-11 Progression Area: PHYSICS/ CHEMISTRY/ ENQUIRY/ ASDAN Science Short Course 1—2 credits.	Title: Module 3—Chemical Changes Context: ‘A’ challenges include: change in mass, acidity, temperature change, metals and water, exothermic reactions, indicators, crystalline. Portfolio of evidence. Banding: SOLAR 1-11 Progression Area: CHEMISTRY/ ENQUIRY/ ASDAN Science Short Course 1—3 credits.	Title: Module 4—Biological Changes Context: ‘A’ challenges include: different cells, percentage cover, threat of extinction, the effect of stimulants, ecology, phototropism, extinction investigation. Portfolio of evidence & *Skills Sheets 1 & 2. Banding: SOLAR 2-11 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—4 credits.	Title: Module 5—Space Physics Context: ‘A’ challenges include: star watch, stop motion animation, the Solar System, shadow angles, meteor strikes, quiz and 1st man on the Moon. Portfolio of evidence. Banding: SOLAR 1-11 Progression Area: PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—5 credits.	Title: Module 6—Performance in Sport Context: ‘A’ challenges include: activity survey & peak flow, pulse rate vs ‘pose’, measuring distance travelled, friction vs speed, grip strength, sporty or not? and performance enhancement. Portfolio of evidence & *Skills Sheets 1, 2 & 3. Banding: SOLAR 1-11 Progression Area: BIOLOGY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—6 credits.
Schedule B	Title: Module 1—Human Machine Context: ‘B’ challenges include: reaction speeds, human fertility, co-ordination, growth rate of children and research into beauty products. Portfolio of evidence. Banding: SOLAR 2-11 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1 credit.	Title: Module 2—Force and Motion Context: ‘B’ challenges include: force protection, construction, friction, velocity, elasticity and earth quake resistance. Portfolio of evidence & *Skills Sheet 1 Banding: SOLAR 1-11 Progression Area: PHYSICS/ CHEMISTRY/ ENQUIRY/ ASDAN Science Short Course 1—2 credits.	Title: Module 3—Chemical Changes Context: ‘B’’ challenges include: elasticity, geology, temperature changes, forensics and recycling. Portfolio of evidence. Banding: SOLAR 1-11 Progression Area: CHEMISTRY/ ENQUIRY/ ASDAN Science Short Course 1—3 credits.	Title: Module 4—Biological Changes Context: ‘B’ challenges include: germination, pioneer planting, the environment, calorific intake and Latin squares. Portfolio of evidence & *Skills Sheets 1 & 2. Banding: SOLAR 2-11 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—4 credits.	Title: Module 5—Space Physics Context: ‘B’ challenges include: Mars challenge, space rover, solar-powered satellite, building construction and solar car challenge. Portfolio of evidence. Banding: SOLAR 1-11 Progression Area: PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—5 credits.	Title: Module 6—Performance in Sport Context: ‘B’ challenge include: shuttle run, who’s a kangaroo?, speed of cooling, world records & performance and sports challenges. Portfolio of evidence & *Skills Sheets 1, 2 & 3. Banding: SOLAR 1-11 Progression Area: BIOLOGY/ PHYSICS/ ENQUIRY/ ASDAN Science Short Course 1—6 credits.
Schedule C	Title: Recording Documents Context: Summary of Achievement and Personal Statement to be completed. Ensure your portfolio of evidence is complete/ up to date. Submit to PJA for moderation. Banding: SOLAR 6-11 Progression Area: ENQUIRY/ ASDAN Science Short Course 1—6 credits.	Title: Unit Award Scheme Context: The Unit Award Scheme (UAS) is a unique recording of achievement scheme, rather than a qualification. It offers learners the opportunity to have their achievements formally recognised with a certificate each time a short unit of learning is successfully completed. Banding: SOLAR Biology, Chemistry, Physics, Science enquiry 1—10 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ Pre-Entry Level to Level 3	Title: Unit Award Scheme Context: The Unit Award Scheme (UAS) is a unique recording of achievement scheme, rather than a qualification. It offers learners the opportunity to have their achievements formally recognised with a certificate each time a short unit of learning is successfully completed. Banding: SOLAR Biology, Chemistry, Physics, Science enquiry 1—10 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ :Pre-Entry Level to Level 13	Title: Unit Award Scheme Context: The Unit Award Scheme (UAS) is a unique recording of achievement scheme, rather than a qualification. It offers learners the opportunity to have their achievements formally recognised with a certificate each time a short unit of learning is successfully completed. Banding: SOLAR Biology, Chemistry, Physics, Science enquiry 1—10 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ Pre-Entry Level to Level 3	Title: Unit Award Scheme Context: The Unit Award Scheme (UAS) is a unique recording of achievement scheme, rather than a qualification. It offers learners the opportunity to have their achievements formally recognised with a certificate each time a short unit of learning is successfully completed. Banding: SOLAR Biology, Chemistry, Physics, Science enquiry 1—10 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ Pre-Entry Level to Level 3	Title: Unit Award Scheme Context: The Unit Award Scheme (UAS) is a unique recording of achievement scheme, rather than a qualification. It offers learners the opportunity to have their achievements formally recognised with a certificate each time a short unit of learning is successfully completed. Banding: SOLAR Biology, Chemistry, Physics, Science enquiry 1—10 Progression Area: BIOLOGY/ CHEMISTRY/ PHYSICS/ ENQUIRY/ Pre-Entry Level to Level 3

Red Moor School

Science Schedule RMS Options Stage (KS4)

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Half-Term block	Notes: Each Half-Term block represents approximately **18** Lessons (**45** minutes each) over 6-7 weeks. **Entry Level Certificate** is designed for students who may not achieve a Grade 1, but you can also use it as a motivational tool to build confidence for your Foundation Tier students.					
Schedule A	Title: Biology Component 1—The Human Body Context: 10 outcomes: cells, levels of organisation, digestive system, respiration, infectious diseases, white blood cells & vaccinations, medical drugs, CNS and reflex action, hormones and controlling fertility. 6 required practicals: using a microscope, pH on rate of reaction, food tests, disinfectant use and stimulants on reaction rate. **End of unit Assessments.* UAS Entry Level: 72665, 72666, 0544, 72261, 83007, 93853, 108015 (Unit 1), 110438, 110440, 113477, 111146, 111248, 108016 (Unit 2), 108017 (Unit 3), 108120 (Unit 4), 113075 (Unit 3). Entry Level with support: 113258 (Unit 1), 111251 (Unit 2) and 113262 (Unit 3). Level One: 87274, 93855, 108937, 113477, 113560. Level Two: 113081 (Unit 2), 113075 (Unit 3), 113099 (Unit 7). Banding: SOLAR Biology 2-11, Scientific Enquiry 4-11. Progression Area: BIOLOGY/ SCIENTIFIC ENQUIRY		Title: Chemistry Component 3—Elements, mixtures and compounds. Context: 10 outcomes: atoms & elements, elements and compounds, states of matter, forms of carbon, mixtures, chromatography, metal extraction from ores, properties of metals, alloys and polymers. 9 required practicals: reaction of metals & oxygen, change in states, properties of graphite, separating substances, chromatography, model smelting, conductivity & density. **End of unit Assessments.* UAS Entry Level: 82046, 108054 (Unit 1), 108055 (Unit 2), 108056 (Unit 3), 108057 (Unit 4), 108058, 108059, 108060, 108061, 111247, 15203, 113259, 113193. Entry Level with support: 113259 (Unit 1), 113263 (Unit 2), 113264 (Unit 3) and 113265 (Unit 4). Level One - 83187, 86162, 113192. Banding: SOLAR Chemistry 6-11, Scientific enquiry 4-11. Progression Area: CHEMISTRY/ SCIENTIFIC ENQUIRY		Title: Physics Component 5—Energy, forces and the structure of matter. Context: 10 outcomes: Changes in energy storage, energy transfers and efficiency, energy resources, types of forces, effects of forces, speed, stopping distance, reaction times and stopping distances, weather conditions and braking distances, radioactivity, 7 required practicals: specific heat capacity, thermal conductivity, voltage generation, pushes/ pulls, attraction/ repulsion, friction, speed and reaction time. **End of unit Assessments.* UAS Entry Level: 75529, 86836, 10548, 10549, 15204, 108065 (Unit 1), 108066 (Unit 2), 108067 (Unit 3), 108073 (Unit 4), 111180, 111182. Entry Level with support: 113260 (Unit 1), 113266 (Unit 2), 113267 (Unit 3) and 113269 (Unit 4). Banding: SOLAR Physics 4-5 & 9-11, Scientific enquiry 4-11. Progression Area: PHYSICS/ SCIENTIFIC ENQUIRY	
Schedule B	Title: Chemistry Component 4: Chemistry in our world. Context: 10 outcomes: acids and metal reactions, neutralisation, energy and rate of reaction, increasing rate of chemical reaction, changes in Earth's atmosphere, current atmosphere, crude oil and fuels, burning fuels, human influences on the atmosphere and water for drinking. 9 required practicals: metals & acid, neutralisation reactions, temperature changes, reaction rates, oxygen production of aquatic plants, amount of CO2 in air vs exhaled air, fractional distillation, products of combustion and distillation. **End of unit Assessments.* UAS Entry Level : 98495, 10546, 10547, 15203, 108058 (Unit 1), 108059 (Unit 2), 108060 (Unit 3) and 108061 (Unit 4). Level One - 86162. Banding: SOLAR Chemistry 9-11, Biology 9-10, Scientific enquiry 4-11. Progression Area: CHEMISTRY/ BIOLOGY/ SCIENTIFIC ENQUIRY		Title: Physics Component 6— Electricity, magnetism and waves. Context: 10 outcomes: current in a circuit, d.c. & a.c. currents, wiring a plug, energy transfer, magnets, electromagnets, waves, wave properties, EMS, uses of the EMS. 10 required practicals: series circuits, oscilloscope patterns, plugs & fuses, meter readings, bar magnets and compasses, magnetic field & electromagnets, waves and their shapes, u.v. radiation and microwaves. **End of unit Assessments.* UAS Entry Level: 73464, 15205, 10548, 108068 (Unit 1), 108069 (Unit 2), 108070 (Unit 3), 108072 (Unit 5), 110503, 111849, 111162. Entry Level with support: 113260 (Unit 1), 113266 and 113267. Level One: 71037. Banding: SOLAR Physics 4-11, Science enquiry 4-11. Progression Area: PHYSICS/ SCIENTIFIC ENQUIRY		Title: Biology Component 2— Environment, evolution and inheritance. Context: 10 outcomes: photosynthesis, adaptation, food chains & webs, decay cycle, competition, environmental changes, pollution, evolution & natural selection, types of reproduction, genes/ chromosomes & DNA. 7 required practicals: rate of photosynthesis, choice chambers, causes of decay, growth of plants, distribution of populations, acid rain, asexual reproduction in plants. **End of unit Assessments.* UAS Entry Level: 70358, 87275, 10545, 15201, 108051 (Unit 1), 108052 (Unit 2), 108053 (Unit 3), 110437, 110439, 110525, 112006. Level One: 71039. Level Two: 113085 (Unit 1), 113086 (Unit 2), 113088 (Unit 4). Banding: SOLAR Biology 7-11, Chemistry 10, Scientific enquiry 4-11. Progression Area: BIOLOGY/ CHEMISTRY/ SCIENTIFIC ENQUIRY	

Red Moor School

Science Schedule RMS Options Stage (KS4)

Half-Term block	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Notes: Each Half-Term block represents approximately **12-14** Lessons (**45** minutes each) over 6-7 weeks. (4 lessons per week @ 45 minutes per lesson = 3 hours per week). The planning is presented with a 'split' timetable to enable students to engage in a broader range of topical learning with **two teachers. Hence for each schedule—A.B and C it is split into 1 and 2 which will be covered simultaneously.**					
Schedule A 1 2 lessons per week	Title: Physics 1: Energy Context: 12 sessions & a checkpoint assessment. Students are supported during their transition, settling into a new timetable and developing a secure level of comprehension and skills, set across the five enquiry types. Banding: SOLAR STEPS 9-10 Progression Area: Physics/ Scientific Enquiry.		Title: Chemistry 1: Atomic structure and the periodic table and Physics 4: Atomic Structure. Context: 12 + 6 sessions & 2 checkpoint assessments. Students develop greater independence and a deeper level of comprehension and skills set across the five enquiry types. Banding: SOLAR: CHEM STEPS 6-11 & PHYS STEPS 9-10 Progression Area: Chemistry/ Physics/ Scientific Enquiry.		Title: Physics 3: Particle Model and Matter. Context: 10 sessions & a checkpoint assessment. Students develop greater independence and enquiry based approach to broaden their level of comprehension and skills set across the five enquiry types. Banding: SOLAR STEPS 6-9 Progression Area: Physics/ Chemistry/ Scientific Enquiry.	
Schedule A 2 2 lessons per week	Title: Biology 1: Cell Biology Context: 11 sessions & a checkpoint assessment. Students are supported during their transition, settling into a new timetable and developing a secure level of comprehension and skills, set across the five enquiry types. Banding: SOLAR 1-11 Progression Area: Biology/ Scientific Enquiry.		Title: Biology 6: Reproduction, Inheritance, Variation and Evolution. Context: 16 sessions & a checkpoint assessment. Students develop greater independence and a deeper level of comprehension and skills set across the five enquiry types. Banding: SOLAR 4-11 Progression Area: Biology/ Scientific Enquiry.		Title: Chemistry 2: Structure, bonding and the properties of matter. Context: 12 sessions (Foundation) & a checkpoint assessment. Students develop greater independence and enquiry based approach to broaden their level of comprehension and skills set across the five enquiry types. Banding: SOLAR 6-11 Progression Area: Chemistry/ Scientific Enquiry.	
Schedule B 1 2 lessons per week	Title: Physics 2: Electricity. Context: 14 sessions & a checkpoint assessment. Banding: SOLAR 4-11 Progression Area: Physics/ Scientific Enquiry.	Title: Chemistry 4: Chemical Changes. Context: 12 sessions & a checkpoint assessment. Banding: SOLAR 4-11 Progression Area: Chemistry/ Scientific Enquiry.	Title: Chemistry 5: Energy Changes Context: 4 sessions & a checkpoint assessment. Banding: SOLAR 5-11 Progression Area: Chemistry/ Scientific Enquiry.	Title: Physics 5: Forces and Motion. Context: 17 sessions & a checkpoint assessments. Banding: SOLAR 3-11 Progression Area: Physics/ Scientific Enquiry.	Title: Physics 7: Magnetism and Electromagnetism. Context:7 sessions & a checkpoint assessment. Banding: SOLAR 3-9 Progression Area: Physics/ Scientific Enquiry.	Title: Title: Chemistry 3: Quantitative Chemistry. Context:5 sessions (Foundation) & a checkpoint assessment. Banding: SOLAR 4-11 Progression Area: Chemistry/ Scientific Enquiry.
Schedule B 2 2 lessons per week	Title: Biology 3: Organisation Context: 16 sessions & a checkpoint assessment. Banding: SOLAR 4-11 Progression Area: Biology/ Scientific Enquiry.	Title: Biology 4: Infection & Response Context: 8 sessions & a checkpoint assessment. Banding: SOLAR 4-10 Progression Area: Biology/ Scientific Enquiry.	Title: Chemistry 6: Rate of Chemical Change. Context: 7 sessions (Foundation) & a checkpoint assessment. Banding: SOLAR 3-11 Progression Area: Chemistry/ Scientific Enquiry.	Title: Biology 5: Homeostasis Context: 9 sessions & a checkpoint assessment. Banding: SOLAR 4-10 Progression Area: Biology/ Scientific Enquiry.	Title: Biology 2: Bioenergetics. Context: 10 sessions & a checkpoint assessment. Banding: SOLAR 3-10 Progression Area: Biology/ Scientific Enquiry.	Title: Chemistry 7: Organic Chemistry. Context: 5 sessions (Foundation) & a checkpoint assessment. Banding: SOLAR 4-11 Progression Area: Chemistry/ Scientific Enquiry.

Red Moor School

Science Schedule RMS Options Stage (KS4)

Half-Term block	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Notes: Each Half-Term block represents approximately **12-14** Lessons (**45** minutes each) over 6-7 weeks. (4 lessons per week @ 45 minutes per lesson = 3 hours per week). The planning is presented with a 'split' timetable to enable students to engage in a broader range of topical learning with **two teachers. Hence for each schedule—A.B and C it is split into 1 and 2 which will be covered simultaneously.**					
Schedule C 1 2 lessons per week	Title: Physics 6: Waves. 12 lessons (Foundation) Context: 12 sessions (Foundation) & a checkpoint assessment. Banding: SOLAR 5-11 Progression Area: Physics/ Scientific Enquiry.	Title: Chemistry 9: The Atmosphere and 8: Chemical Analysis. Context: 7 + 4 sessions & 2 checkpoint assessments. Banding: SOLAR 6-11 & 5-11 Progression Area: Chemistry/ Scientific Enquiry.	Title: Revision Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.	Title: Revision Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.	Title: Revision Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.	Title: Exams Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.
Schedule C 2 2 lessons per week	Title: Biology 7: Evolution. Context: 8 sessions & a checkpoint assessment. Banding: SOLAR 5-10 Progression Area: Biology/ Scientific Enquiry.	Title: Chemistry 10: Sustainable development. Context: 6 sessions (Foundation) & a checkpoint assessment. Banding: SOLAR 5-10 Progression Area: Chemistry PHYSICS Scientific Enquiry.	Title: Biology 8: Ecology. Context: 12 sessions & a checkpoint assessment. Banding: SOLAR 6-10 Progression Area: Biology/ Scientific Enquiry.	Title: Revision Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.	Title: Revision Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.	Title: Exams Context: Checkpoint/ follow up with support and extension work. Banding: SOLAR 7-11 Progression Area: Biology/ Chemistry/ Physics/ Scientific Enquiry.