

**Manchester Hospital School  
Long Term Plan**

RMCH, The Christie, Wythenshawe Hospital and  
North Manchester General Hospital

**Science**

**At secondary the home school sequence is followed where possible.**  
Please see knowledge and skills sequence of learning for further information relating to programmes of study

<p align="center"><b>KS4</b></p>	<p align="center"><b>Biology</b></p> <p align="center"><b>Cells and organisation</b> B1 Cell structure and transport B2 Cell division B3 Organisation and the digestive system B4 Organising plants and animals</p> <p align="center"><b>Disease and bioenergetics</b> B5 Communicable disease B6 Preventing and printing disease B7 Non-communicable disease B8 Photosynthesis B9 Respiration</p> <p align="center"><b>Biological responses</b> B10 The human nervous system B11 Hormonal coordination</p> <p align="center"><b>Genetics and evolution</b> B12 Reproduction B13 Variation and evolution B14 Genetics and evolution</p> <p align="center"><b>Ecology</b> B15 Adaptations, interdependence and competition B16 Organising an ecosystem B17 Biodiversity and ecosystems</p>	<p align="center"><b>Chemistry</b></p> <p align="center"><b>Atoms, bonding and moles</b> C1 Atomic structure C2 Periodic table C3 Structure and bonding C4 Chemical calculations</p> <p align="center"><b>Chemical reactions and energy changes</b> C5 Chemical changes C6 Electrolysis C7 Energy changes</p> <p align="center"><b>Rates, equilibrium and organic chemistry</b> C8 Rates and equilibrium C9 Crude oil and fuels</p> <p align="center"><b>Analysis and the Earth's resources</b> C10 Chemical analysis C11 The earth's atmosphere C12 The earth's resources</p>	<p align="center"><b>Physics</b></p> <p align="center"><b>Energy and energy resources</b> P1 Conservation and dissipation of energy P2 Energy transfer by heating P3 Energy resources</p> <p align="center"><b>Particles at work</b> P4 Electric circuits P5 Electricity in the home P6 Molecules and matter P7 Radioactivity</p> <p align="center"><b>Forces in action</b> P8 Forces in Balance P9 Motion P10 Forces and motion</p> <p align="center"><b>Waves, electromagnetism and space</b> P11 Wave properties P12 Electromagnetic waves P13 Electromagnetism</p>
<p align="center"><b>KS3</b></p>	<p align="center"><b>Biology</b></p> <p align="center">Cells</p>	<p align="center"><b>Chemistry</b></p> <p align="center">Particle behaviour</p>	<p align="center"><b>Physics</b></p> <p align="center">Forces</p>

	Body systems Reproduction in plants and animals Health and lifestyle Biological processes Ecosystems and adaption Inheritance	Atoms, elements & compounds Reactions Acids and Alkalis The periodic table Separation techniques Metals and other materials The Earth	Sound Light Space Electricity and magnetism Energy Motion and pressure
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Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
6	Animals incl Humans	Looking after our environment	Living things and their habitats	Electricity	Evolution	Light
5	Animals incl Humans	Properties of Materials	Living things and their habitats	Earth and Space	Forces	Changes of Materials
4	Animals incl. Humans	States of Matter	Living things and their habitats	Electricity	Living things and their habitats (Conservation)	Sound
3	Animal incl humans	Rocks	What do scientists do?	Plants	Forces and magnets	Light
2	Animals incl Humans (Growth)	Use of everyday materials	Living things and their habitats	Plants	Animals incl Humans (Life-cycles)	Living things and their habitats (Around the world)
1	Animals incl Humans (All about me)	Use of everyday materials	Animals incl Humans	Plants	Seasonal changes	Use of everyday materials 2

			(Animals)			
EYFS	Happy to be Me (5 senses / body part names)	Tell us a story/Christmas (Planting and growing / Animals / Materials)	No Place Like Home (Animal shelters / Light and Shadow)	What on Earth (Animals and their habitats / Spring / Planting and growing)	Under the Sea (Sea creatures)	Come Fly with Me Asia