Long Term Sequence for Science

Phase 1 / 2	Physics	Chemistry	Biology	Biology	Biology	
	Seasonal Changes:	Materials & Properties	Animals including	Living Things & their	Plants	
	weather,day & night	,	Humans	Habitats		
	. , ,	The study of the			The study of living	
Substantive	The study of energy	composition, behaviour	The study of living	The study of living	things, including:	
Concept	forces, mechanics,	and properties of	things, including: Types	things, including:	Common plants and	
	waves, structure of	matter.	of animals, Food animals	Characteristics of living	trees in a local	
	atoms, physical universe		eat, Senses,	things, Relationship of	environment.	
	•		Reproduction, Basic	living things and their	Growth ,Health,	
	1		needs, Diet and exercise	environment.	Relationship of living	
	Earth in Space		for humans.		things and their environment.	
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Phase 3 / 4	Physics	Chemistry Rocks	Biology	Biology	Biology	Physics
	Forces & Magnets	States of Matter	Animals including Humans	Living Things & their Habitats	Plants	Electricity Light Sound
Substantive	The study of energy	States of Matter	The study of living	Tiabitats	The study of living	Light Sound
Concept	forces, mechanics,	The study of the	Amount and type of	The study of living	things, including:	The study of energy
	waves, structure of	composition, behaviour	nutrition ,Structure of	things, including:	Structure and function,	forces, mechanics,
	atoms, physical universe	and properties of	humans and animals,	Grouping, Classification,	Food and survival, Life	waves, structure of
		matter.	Structure of digestive	Environmental change	systems Reproduction.	atoms, physical
	1		system ,Function of	and impact.		universe.
	Earth in Space		digestive system,			1
			Relationship of food			Earth in Space
			chains.			
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Phase 5 / 6	Physics	Chemistry	Biology	Biology	Biology	Physics
	Forces	Properties & Changes of	Animals including	Living Things & their	Evolution & Inheritance	Electricity
		Materials	Humans	Habitats		Light sound
Substantive	Matter Forces and				The study of living	
Concept	motion Sound, light and	The study of the	The study of living	The study of living	things: Change,	Matter, Forces and
	waves ,Electricity and	composition, behaviour	things: Lifespan and life	things, including	Evolution, Adaption,	motion.Sound, light and
	magnetism.	and properties of	cycle, Change and	Structure, Order Life	Environment.	waves. Electricity and
		matter.	growth,	cycles, Reproduction,		magnetism.
	Earth in Space		Structure and function	Pioneering scientists,		The study of energy
			of the circulatory	Classification.		forces, mechanics waves
			system, Health and exercise.			structure of atoms,
		1	exercise.			physical universe.
						Earth in Space

GCSE Concepts

Biology-substantive concepts

- 1. Cell biology
- 2. Organisation
- 3. Infection and response
- 4. Bioenergetics
- 5. Homeostasis and response
- 6. Inheritance, variation and evolution
- 7. Ecology

Chemistry-substantive concepts

- 1. Atomic structure and the periodic table
- 2. Bonding, structure, and the properties of matter
- 3. Quantitative chemistry
- 4. Chemical changes
- 5. Energy changes
- 6. The rate and extent of chemical change
- 7. Organic chemistry
- 8. Chemical analysis
- 9. Chemistry of the atmosphere
- 10. Using resources

Physics-substantive concepts

- 1. Energy
- 2. Electricity
- 3. Particle model of matter
- 4. Atomic structure
- 5. Forces
- 6. Waves
- 7. Magnetism and electromagnetism
- 8. Space physics (physics only)