



enhancement, Steroids, Marginal

gains, synapse, Neurone, Stimulant,

Curriculum Overview for Science

Year 9

Half Term 1: Future Olympian	Skim reading Decoding – modelled
Substantive Knowledge:	Etymology of key terms
Identification of main food group	Syllabification
How to control body temperature	
The effects of energy drinks	Healthy, Balanced, composite,
Explain heart rate	ceramics, Ratios, Energy, Diet,
• Describe how heart rate is affected by exercise	Temperature, Homeostasis,
• Describe exothermic and endothermic reactions.	Vasodilation, Vasoconstriction,
• Explain breathing rate and how it changes during exercise	Electrolytes, Endothermic, Exothermic
Compare anaerobic and aerobic respiration	Adrenaline, Caffeine, Glucose, Lungs,
 How respiration is affected by altitude 	Reactants, Products, Respiration,
 The effects of performance enhancing drugs in sport 	Haemoglobin, Saturation, Drug testing, Athletes, Performance
 How athletes alter their body to gain an advantage 	enhancement, Steroids, Marginal
 Describe what makes the perfect athlete 	gains, synapse, Neurone, Stimulant,
Describe the 3 types of neurone	Reaction time, Acceleration,
 How drugs affect the nervous system 	Deceleration, Velocity, Antidoping
Explain reaction time	
 How MND and MS affect normal life 	
 How we respond to sound and light 	Recall Written assessment
 How to calculate speed 	
 How to interpret distance-time graphs 	
How to interpret velocity-time graphs	Article comprehension task
Disciplinary Knowledge:	Preparation of revision cards
Graph analysis of heart rate/distance-time graphs	Memorising of revision cards for recall quiz – one for each unit
Using calculations to analyse exercise	
Use a variety of resources to summarise notes	
 Ask questions and develop a line of enquiry based on absorbations of the westwoodd. 	
 observations of the real world. Make and record observations 	
Indike and record observations	
Half Term 2: Future olympian	Skim reading
ubstantive Knowledge:	Decoding – modelled Etymology of key terms
 Identification of main food group 	Syllabification
 How to control body temperature 	
 The effects of energy drinks 	Healthy, Balanced, Ratios, Energy,
 Explain heart rate 	Diet, Temperature, Homeostasis,
 Describe how heart rate is affected by exercise 	Vasodilation, Vasoconstriction,
 Describe exothermic and endothermic reactions. 	Electrolytes, Endothermic, Exothermic
 Explain breathing rate and how it changes during exercise 	Adrenaline, Caffeine, Glucose, Lungs,
 Compare anaerobic and aerobic respiration 	Reactants, Products, Respiration,
 How respiration is affected by altitude 	Haemoglobin, Saturation, Drug
How respiration is affected by altitude The offects of performance enhancing drugs in sport	testing, Athletes, Performance

- The effects of performance enhancing drugs in sport
- How athletes alter their body to gain an advantage





- Describe what makes the perfect athlete
- Describe the 3 types of neurone
- How drugs affect the nervous system
- Explain reaction time
- How MND and MS affect normal life
- How we respond to sound and light
- How to calculate speed
- How to interpret distance-time graphs
- How to interpret velocity-time graphs

Disciplinary Knowledge:

- Graph analysis of heart rate/distance-time graphs
- Using calculations to analyse exercise
- Use a variety of resources to summarise notes
- Ask questions and develop a line of enquiry based on observations of the real world.
- Make and record observations

Wider links to the world and diversity
Reaction time, Acceleration,
Deceleration, Velocity, Antidoping
Written assessment
Article comprehension task
Preparation of revision cards
Memorising of revision cards for recall quiz
– one for each unit