Emerging Progress

The Learning Journey in Science

Reproduction

Throughout an **Increasingly** Challenging Knowledge Led Curriculum from Year 7, to Year 9, Emerging Students Can:

Includes links to prior

learning from year 7

content.

- Recall some basic key words with support
- State the meaning of some basic key words with support
- Link some keywords to pictures or meanings with support

Current, voltage, resistance,

Interdependence,

Speed

Separating mixtures,

Metals and non metals,

- Add some basic labels to diagrams with support
- Use basic maths within science with support

- Recognise some, equipment, safety, risks and steps needed during practical work, with support
- Understand basic information from graphs with support
- Demonstrate basic knowledge and understanding of their current topic,
- Recall basic information from past learning with support, prompting and questioning.

Mock Exam:

Assessment 2:

Also includes links

to prior learning

from the Year 7

and 8 content.

Assessment 3:

In Year 9, the students Knowledge journey increases in Challenge further to include.....

	Particle model,	Reassesses some	Chromatography,			
In Year 7, students Knowledge journey includes		Assessment 1:	Assessment 2:	Atomic structure,	of the mock exam	Photosynthesis,
		Introduction to year 8	All of Assessment 1 content and	Cell biology	content	Plant organisation,
		science skills,	Resultant forces and pressure,		Cell biology	Energy
Assessment 1:	Assessment 2:	Periodic table,	Climate,		Atoms and	
Introduction to year 7	Cells,	Photosynthesis,	Evolution,	Includes links to	Isotopes,	Also includes links
science skills,	Sound,	Types of reaction,	Chemical change,	prior learning from	Chemical change,	to prior learning
Universe,	Light,	Digestive system,	Breathing respiration and movement,	the Year 7 and 8	Organic chemistry,	from the Year 7 and
Particle model,	Acids and alkali,	Earth structure and	Magnets,	content.	Atmosphere,	8 content.
Variation.	Energy.	resources	Waves and their properties,			

Inheritance,

Work done,

Heating and cooling

year 7 content.

Includes links to prior learning from

Developing Progress

The Learning Journey in Science

Throughout an Increasingly Challenging Knowledge Led Curriculum from Year 7, to Year 9, Developing Students Can:

- · Recall basic key words with guidance
- State the meaning of most basic key words with guidance
- Link keywords to pictures or meanings with guidance
- · Add most labels to diagrams with guidance

Speed

• Use basic maths within science with guidance

- Recognise the equipment, safety, risks and steps needed during practical work with guidance.
- Describe basic graphs and find key information from them with guidance
- Demonstrate basic knowledge and understanding of their current and recent topics
- Can recall basic information from past learning with prompting and questioning.

In Year 9, the students Knowledge journey increases in Challenge further to include.....

In Year 8, students Knowledge journey increases in Challenge to include				Mock Exam: Particle model,	Assessment 2: Reassesses some	Assessment 3: Chromatography,
In Year 7, students Knowledge journey includes		Assessment 1: Introduction to year 8 science skills,	Assessment 2: All of Assessment 1 content and Resultant forces and pressure,	Atomic structure , Cell biology	of the mock exam content Cell biology	Photosynthesis, Plant organisation, Energy
Assessment 1: Introduction to year 7 science skills, Universe, Particle model, Variation, Reproduction	Assessment 2: Cells, Sound, Light, Acids and alkali, Energy, Current, voltage, resistance,	Periodic table, Photosynthesis, Types of reaction, Digestive system, Earth structure and resources	Climate, Evolution, Chemical change, Breathing respiration and movement, Magnets, Waves and their properties, Inheritance,	Includes links to prior learning from the Year 7 and 8 content.	Atoms and Isotopes, Chemical change, Organic chemistry, Atmosphere Also includes links	Also includes links to prior learning from the Year 7 and 8 content.
Reproduction	Interdependence, Separating mixtures, Metals and non metals,	Includes links to prior learning from year 7 content.	Work done, Heating and cooling		to prior learning from the Year 7 and 8 content.	

year 7 content.

Includes links to prior learning from

Achieving Progress

The Learning Journey in Science

Throughout an **Increasingly** Challenging knowledge Led Curriculum from Year 7, to Year 9, Achieving Students Can:

- Recall most key words at the end of a topic independently
- State the meanings of basic key words independently and use them in context
- Link most keywords to pictures or meanings independently
- Add most labels to diagrams independently
- Use basic maths within science independently

- Recognise common, equipment, safety, risks and steps needed during practical work independently
- Find key information from graphs and be able to describe them independently
- Use scientific understanding with guidance to explain patterns and trends
- Demonstrate clear knowledge and understanding of their current and recent topics
- Can recall key information from past learning through questioning.

In Year 9, the students Knowledge journey increases in Challenge further to include.....

In Year 8, students Knowledge journey increases in challenge to include				Mock Exam: Particle model,	Assessment 2: Reassesses some	Assessment 3: Chromatography,
In Year 7, students Knowledge journey		Assessment 1:	Assessment 2:	Atomic structure ,	of the mock exam	Photosynthesis,
includes		Introduction to year 8 science skills,	All of Assessment 1 content and Resultant forces and pressure,	Cell biology	content Cell biology	Plant organisation, Energy
Assessment 1:	Assessment 2:	Periodic table,	Climate,		Atoms and	G,
Introduction to year 7	Cells,	Photosynthesis,	Evolution,	Includes links to	Isotopes,	Also includes links
science skills,	Sound,	Types of reaction,	Chemical change,	prior learning from	Chemical change,	to prior learning
Universe,	Light,	Digestive system,	Breathing respiration and movement,	the Year 7 and 8	Organic chemistry,	from the Year 7 and
Particle model,	Acids and alkali,	Earth structure and	Magnets,	content.	Atmosphere,	8 content.
Variation,	Energy,	resources	Waves and their properties,			
Reproduction	Current, voltage, resistance,		Inheritance,		Also includes links	
·	Interdependence,	Includes links to prior	Work done,		to prior learning	
	Separating mixtures,	learning from year 7	Heating and cooling		from the Year 7	
	Metals and non metals,	content.			and 8 content.	
	Speed		Includes links to prior learning from			

year 7 content.

Exceeding Progress

The Learning Journey in Science

Throughout an **Increasingly** Challenging Knowledge Led Curriculum from Year 7, to Year 9, Exceeding Students Can:

- Recall key words words at the end of a topic independently
- State the meanings of most key words independently and use them in context
- Link keywords to pictures or meanings independently
- Add labels to diagrams independently

Use higher maths skills within science independently

- Recognise equipment, safety, risks and steps needed during practical work independently
- Extrapolate and use information from graphs and be able to describe them independently with confidence
- Independently use key scientific understanding to explain and predict patterns and trends
- Demonstrate with confidence, a solid knowledge and understanding of their current and recent topics,
- Can confidently recall information from past learning, during questioning or independent work

In Year 9, the students Knowledge journey increases in Challenge further to include.....

In Year 8, students Knowledge journey increases in Challenge to include				Mock Exam: Particle model,	Assessment 2: Reassesses some	Assessment 3: Chromatography,
In Year 7, students Knowledge journey		Assessment 1:	Assessment 2:	Atomic structure,	of the mock exam	Photosynthesis,
		Introduction to year 8	All of Assessment 1 content and	Cell biology	content	Plant organisation,
Inc	ludes	science skills,	Resultant forces and pressure,		Cell biology	Energy
Assessment 1:	Assessment 2:	Periodic table,	Climate,		Atoms and	
Introduction to year 7	Cells,	Photosynthesis,	Evolution,	Includes links to	Isotopes,	Also includes links
science skills,	Sound,	Types of reaction,	Chemical change,	prior learning from	Chemical change,	to prior learning
Universe,	Light,	Digestive system,	Breathing respiration and movement,	the Year 7 and 8	Organic chemistry,	from the Year 7 and
Particle model,	Acids and alkali,	Earth structure and	Magnets,	content.	Atmosphere	8 content.
Variation,	Energy,	resources	Waves and their properties,			
Reproduction	Current, voltage, resistance,		Inheritance,		Also includes links	
	Interdependence,	Includes links to prior	Work done,		to prior learning	
	Separating mixtures,	learning from year 7	Heating and cooling		from the Year 7	
	Metals and non metals,	content.			and 8 content.	
	Speed		Includes links to prior learning from			

year 7 content.

Excelling Progress

The Learning Journey in Science

Throughout an **Increasingly** Challenging Knowledge Led Curriculum from Year 7, to Year 9, Excelling Students Can:

- Recall all key words at the end of a topic independently
- State the meanings of key words independently and use them in context with confidence
- Link keywords to pictures or meanings independently
- Add labels to diagrams independently
- Use higher maths skills independently and with confidence to ensure all challenging questions are solved

- Recognise equipment, safety, risks and steps needed during practical work independently
- Extrapolate and use information from multiple graphs and be able to describe them independently with confidence
- Independently use thorough scientific understanding to explain and predict patterns and trends
- Demonstrate with confidence, a thorough working knowledge and understanding of their current and recent topics,
- Can confidently recall information from past learning, during questioning or independent work making links between topics

In Year 9, the students Knowledge journey increases in Challenge further to include.....

In Year 8, students Knowledge journey increases in Challenge to include				Mock Exam: Particle model,	Assessment 2: Reassesses some	Assessment 3: Chromatography,
In Year 7, students Knowledge journey includes		Assessment 1: Introduction to year 8 science skills,	Assessment 2: All of Assessment 1 content and Resultant forces and pressure,	Atomic structure , Cell biology	of the mock exam content Cell biology	Photosynthesis, Plant organisation, Energy
Assessment 1:	Assessment 2:	Periodic table,	Climate,		Atoms and	
Introduction to year 7	Cells,	Photosynthesis,	Evolution,	Includes links to	Isotopes,	Also includes links
science skills,	Sound,	Types of reaction,	Chemical change,	prior learning from	Chemical change,	to prior learning
Universe,	Light,	Digestive system,	Breathing respiration and movement,	the Year 7 and 8	Organic chemistry,	from the Year 7 and
Particle model,	Acids and alkali,	Earth structure and	Magnets,	content.	Atmosphere	8 content.
Variation,	Energy,	resources	Waves and their properties,			
Reproduction	Current, voltage, resistance,		Inheritance,		Also includes links	
·	Interdependence,	Includes links to prior	Work done,		to prior learning	
	Separating mixtures,	learning from year 7	Heating and cooling		from the Year 7	
	Metals and non metals,	content.			and 8 content.	
	Speed		Includes links to prior learning from			
	•		year 7 content.			



Student Learning Journey: Progress in Science



	Scientific Knowledge	Literacy in Science Skills	Numeracy in Science Skills	Working Scientifically Skills
Emerging	Demonstrate basic knowledge and understanding of their current topic, Recall basic information from past learning with support, prompting and questioning. Recall some basic key words with support	State the meaning of some basic key words with support Link some keywords to pictures or meanings with support	Understand basic information from graphs with support Use basic maths within science with support	Recognise some, equipment, safety, risks and steps needed during practical work, with support Add some basic labels to diagrams with support Can identify hazards in practical methods
Developing	Demonstrate basic knowledge and understanding of their current and recent topics, Can recall basic information from past learning with prompting and questioning Recall basic key words with guidance	State the meaning of most basic key words with guidance Link keywords to pictures or meanings with guidance	Describe basic graphs and find key information from them with guidance Use basic maths within science with guidance	Recognise the equipment, safety, risks and steps needed during practical work with guidance. Add most labels to diagrams with guidance Can identify hazards, risk and some control measures in practical work
Achieving	Demonstrate clear knowledge and understanding of their current and recent topics, Can recall key information from past learning through questioning. Recall most key words at the end of a topic independently	State the meanings of basic key words independently and use them in context Link most keywords to pictures or meanings independently	Find key information from graphs and be able to describe them independently Use scientific understanding with guidance to explain patterns and trends Use basic maths within science independently	Recognise common, equipment, safety, risks and steps needed during practical work independently Add most labels to diagrams independently Can complete a basic risk assessment independently
Exceeding	Demonstrate with confidence, a solid knowledge and understanding of their current and recent topics, Can confidently recall information from past learning, during questioning or independent work Recall keywords at the end of a topic independently	State the meanings of most key words independently and use them in context Link keywords to pictures or meanings independently	Extrapolate and use information from graphs and be able to describe them independently with confidence Independently use key scientific understanding to explain and predict patterns and trends Use higher maths skills within science independently	Recognise equipment, safety, risks and steps needed during practical work independently Add labels to diagrams independently Can complete a detailed risk assessment Can identify where experimental methods can be improved
Excelling	Demonstrate with confidence, a thorough working knowledge and understanding of their current and recent topics, Can confidently recall information from past learning, during questioning or independent work making links between topics Recall all key words at the end of a topic independently	State the meanings of key words independently and use them in context with confidence Link keywords to pictures or meanings independently	Extrapolate and use information from multiple graphs and be able to describe them independently with confidence Independently use thorough scientific understanding to explain and predict patterns and trends Independently and with confidence ensure almost all challenging mathematical questions are solved	Recognise equipment, safety, risks and steps needed during practical work independently Add labels to diagrams independently Can complete a detailed risk assessment Can write a basic evaluation

In Year 9, the students knowledge journey increases in challenge further to include.....

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	Mock Exam: Particle model,	Assessment 2:	Assessment 3:				
In Year 7, students knowledge journey includes		Assessment 1: Introduction to year 8 science skills,	Assessment 2: All of Assessment 1 content and Resultant forces and pressure,	Atomic structure, Cell biology	Reassesses some of the mock exam content Cell biology	Chromatography, Photosynthesis, Plant organisation, Energy	
Introduction to year 7 Cell science skills, Sou Universe, Ligh Particle model, Acid Variation, Ene Reproduction Curl Inte Sep	and, nt, ds and alkali, ergy, rent, voltage, resistance, erdependence, parating mixtures, tals and non metals,	Periodic table, Photosynthesis, Types of reaction, Digestive system, Earth structure and resources Includes links to prior learning from year 7 content.	Climate, Evolution, Chemical change, Breathing respiration and movement, Magnets, Waves and their properties, Inheritance, Work done, Heating and cooling Includes links to prior learning from year 7 content.	Includes links to prior learning from the Year 7 and 8 content.	Atoms and Isotopes, Chemical change, Organic chemistry, Atmosphere Also includes links to prior learning from the Year 7 and 8 content.	Also includes links to prior learning from the Year 7 and 8 content.	