Emerging Progress

The Learning Journey in Science

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

- 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
- 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.

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

In Year 8, students Knowledge journey increases in Challenge to include…..

In Year 7, students Knowledge journey includes……

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,
Interdependence,
Separating mixtures,
Metals and non metals,
Speed

Assessment 1:
Introduction to year 8 science skills,
Periodic table,
Photosynthesis,
Types of reaction,
Digestive system,
Earth structure and resources

Includes links to prior learning from year 7 content.

Assessment 2:
All of Assessment 1 content and …
Resultant forces and pressure,
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.

Mock Exam:
Particle model,
Atomic structure ,
Cell biology

Includes links to prior learning from the Year 7 and 8 content.

Assessment 2:
Reassesses some of the mock exam content …
Cell biology
Atoms and Isotopes,
Chemical change,
Organic chemistry,
Atmosphere,

Also includes links to prior learning from the Year 7 and 8 content.

Assessment 3:
Chromatography,
Photosynthesis,
Plant organisation,
Energy

Also includes links to prior learning from the Year 7 and 8 content.

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
- 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…..

In Year 7, students Knowledge journey includes……

<u>Assessment 1:</u>
Introduction to year 7 science skills,
Universe,
Particle model,
Variation,
Reproduction

<u>Assessment 2:</u>
Cells,
Sound,
Light,
Acids and alkali,
Energy,
Current, voltage, resistance,
Interdependence,
Separating mixtures,
Metals and non metals,
Speed

<u>Assessment 1:</u>
Introduction to year 8 science skills,
Periodic table,
Photosynthesis,
Types of reaction,
Digestive system,
Earth structure and resources

Includes links to prior learning from year 7 content.

<u>Assessment 2:</u>
All of Assessment 1 content and …
Resultant forces and pressure,
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.

<u>Mock Exam</u>:
Particle model,
Atomic structure ,
Cell biology

Includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 2:</u>
Reassesses some of the mock exam content …
Cell biology
Atoms and Isotopes,
Chemical change,
Organic chemistry,
Atmosphere

Also includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 3</u>:
Chromatography,
Photosynthesis,
Plant organisation,
Energy

Also includes links to prior learning from the Year 7 and 8 content.

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…..

In Year 7, students Knowledge journey includes……

<u>Assessment 1:</u>
Introduction to year 7 science skills,
Universe,
Particle model,
Variation,
Reproduction

<u>Assessment 2:</u>
Cells,
Sound,
Light,
Acids and alkali,
Energy,
Current, voltage, resistance,
Interdependence,
Separating mixtures,
Metals and non metals,
Speed

<u>Assessment 1:</u>
Introduction to year 8 science skills,
Periodic table,
Photosynthesis,
Types of reaction,
Digestive system,
Earth structure and resources

Includes links to prior learning from year 7 content.

<u>Assessment 2:</u>
All of Assessment 1 content and …
Resultant forces and pressure,
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.

<u>Mock Exam</u>:
Particle model,
Atomic structure ,
Cell biology

Includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 2:</u>
Reassesses some of the mock exam content …
Cell biology
Atoms and Isotopes,
Chemical change,
Organic chemistry,
Atmosphere,

Also includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 3</u>:
Chromatography,
Photosynthesis,
Plant organisation,
Energy

Also includes links to prior learning from the Year 7 and 8 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…..

In Year 7, students Knowledge journey includes……

<u>Assessment 1:</u>
Introduction to year 7 science skills,
Universe,
Particle model,
Variation,
Reproduction

<u>Assessment 2:</u>
Cells,
Sound,
Light,
Acids and alkali,
Energy,
Current, voltage, resistance,
Interdependence,
Separating mixtures,
Metals and non metals,
Speed

<u>Assessment 1:</u>
Introduction to year 8 science skills,
Periodic table,
Photosynthesis,
Types of reaction,
Digestive system,
Earth structure and resources

Includes links to prior learning from year 7 content.

<u>Assessment 2:</u>
All of Assessment 1 content and …
Resultant forces and pressure,
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.

<u>Mock Exam</u>:
Particle model,
Atomic structure ,
Cell biology

Includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 2:</u>
Reassesses some of the mock exam content …
Cell biology
Atoms and Isotopes,
Chemical change,
Organic chemistry,
Atmosphere

Also includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 3</u>:
Chromatography,
Photosynthesis,
Plant organisation,
Energy

Also includes links to prior learning from the Year 7 and 8 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…..

In Year 7, students Knowledge journey includes……

<u>Assessment 1:</u>
Introduction to year 7 science skills,
Universe,
Particle model,
Variation,
Reproduction

<u>Assessment 2:</u>
Cells,
Sound,
Light,
Acids and alkali,
Energy,
Current, voltage, resistance,
Interdependence,
Separating mixtures,
Metals and non metals,
Speed

<u>Assessment 1:</u>
Introduction to year 8 science skills,
Periodic table,
Photosynthesis,
Types of reaction,
Digestive system,
Earth structure and resources

Includes links to prior learning from year 7 content.

<u>Assessment 2:</u>
All of Assessment 1 content and …
Resultant forces and pressure,
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.

<u>Mock Exam</u>:
Particle model,
Atomic structure ,
Cell biology

Includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 2:</u>
Reassesses some of the mock exam content …
Cell biology
Atoms and Isotopes,
Chemical change,
Organic chemistry,
Atmosphere

Also includes links to prior learning from the Year 7 and 8 content.

<u>Assessment 3</u>:
Chromatography,
Photosynthesis,
Plant organisation,
Energy

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Jesmond Park Academy

Student Learning Journey: Progress in Science

Skills

	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

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