CHEADLE HULME HIGH SCHOOL

Key Stage 3 Foundation Stages Reference Guide

ART AND DESIGN

	AO1	AO2	AO3	AO4
ART & DESIGN	**RESEARCH**	**EXPLORE**	**RECORD**	**RESPOND AND EVALUATE**
	Develop ideas through investigations, demonstrating critical understanding of sources.	**Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.**	**Record ideas, observations and insights relevant to intentions as work progresses.**	**Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.**
BFS	**BEYOND FOUNDATION STAGE- A Highly developed ability of Foundation Stage 5**			
FS5- Effective	An ability to effectively develop ideas through creative and purposeful investigations. An ability to effectively research themes and the relevant work of artists, craftpersons and designers	An ability to effectively refine ideas. An ability to effectively select and purposefully experiment with appropriate media, materials techniques and processes.	An effective ability to skilfully record ideas, observations and insights through drawing and annotation, and any other appropriate means relevant to intentions, as work progresses.	A developed ability to competently present a personal and meaningful response and realise intentions with confidence and conviction. A confident ability to demonstrate understanding of visual language.
FS4-Consistent	A consistent ability to develop ideas through purposeful investigations. A consistent ability to research themes and the relevant work of artists, craftpersons and designers	A consistent ability to refine ideas. A consistent ability to select and purposefully experiment with appropriate media, materials, techniques and processes	An ability to skilfully record ideas, observations and insights through drawing and annotation, and any other appropriate means relevant to intentions, as work progresses	A consistent ability to competently present a personal and meaningful response and realise intentions A consistent ability to demonstrate understanding of visual language

FS3-competent	A competent ability to develop ideas through purposeful investigations. A competent ability to research themes and the relevant work of artists, craftpersons and designers	A competent ability to refine ideas A competent ability to select and purposefully experiment with appropriate media, materials, techniques and processes.	A competent ability to record ideas, observations and insights through drawing and annotation, and any other appropriate means relevant to intentions, as work progresses.	A competent ability to present a personal and meaningful response and realise intentions. A competent ability to demonstrate understanding of visual language
FS2- some ability	Some ability to develop ideas through purposeful investigations. Some ability to research themes and the relevant work of artists, craftpersons and designers	Some ability to refine ideas Some ability to select and experiment with appropriate media, materials, techniques and processes	Some ability to record ideas, observations and insights through drawing and annotation, and any other appropriate means relevant to intentions, as work progresses	Some ability to present a personal and meaningful response and realise intentions. Some ability to demonstrate understanding of visual language
FS1 – Minimal ability	Minimal ability to develop ideas through investigations Minimal ability to research themes and the relevant work of artists, craftpersons and designers	Minimal ability to refine ideas Minimal ability to select and experiment with appropriate media, materials, techniques and processes	Minimal ability to record ideas, observations and insights through drawing and annotation, and any other appropriate means relevant to intentions, as work progresses	Minimal ability to present a personal and meaningful response and realise intentions Minimal ability to demonstrate understanding of visual language

COMPUTING

	Programming languages and algorithms	Data representation and Modelling	Hardware, Software and Networking	Using Technology safely	Creative Projects
FS1	You can identify a flowchart and can understand some symbols it uses. You can create basic algorithms but may use incorrect symbols and the outcome may be inaccurate You understand the basic concepts of decomposition and abstraction With guidance you can create a flowchart from a written algorithm. With help, your algorithms and commands are mostly in the correct sequenced and match some of the requirements of the task	You can identify a spreadsheet and can label some of the key areas on it. You can create basic formulas but may use incorrect operators and the outcome may be inaccurate You understand the basic concepts of functions With guidance you can create a simple chart from data provided With some accuracy you can convert some numbers of Decimal and Binary bases You show an awareness of the need for a binary number base in computing	You can differentiate between some hardware and software components You have some understanding of the difference between an input and output device You have a basic understanding of assistive technology With guidance you can complete some simple binary conversions You can describe some differences between the WWW and Internet You can identify some characteristics of wireless	You are aware of some of the risks and benefits that come with programs and environments whilst using the internet You can communicate your knowledge in an easy-to-understand manner to your audience You are aware of some factors that contribute to the reliability of internet sources Your use of search engines leads to relevant results through accurate search terms You are aware of some of the threats on networks	You can combine some different types of digital media into a single artifact You can create and manipulate some forms of digital media The media you create is suitable for consumption on one type of digital device You can use a limited range of different types of software to manipulate digital media making limited use of the tools available The produced digital artifacts meet a limited range of the needs of the audience The produced digital artifacts fulfil a limited range of the purposes of the brief

	You can use of iteration to repeat basic commands to create a single shape You can identify some of the errors in your programs and with some help, debug them		vs wired network connections You are aware of some of the benefits and drawbacks of cloud computing You can identify some components involved in creating a network You are aware of some differences between LANs and WANs Given a computing scenario you can that illegal actions may have been taken	You can communicate your knowledge in an easy-to-understand manner to your audience You understand what your personal data is and how you share this online	You can make full use of some tools found in software packages You can analyse data using a single metric and make a conclusion from this analysis Limited design considerations for the audience will be shown in limited aspects of your digital artifacts The usability of any digital artifacts will allow the user to interact with some parts of it You use methods of data collection and recording capture some data Your analysis of any data collected uses simple methods which produce a limited conclusion

	Programming languages and algorithms	Data representation and Modelling	Hardware, Software and Networking	Using Technology safely	Creative Projects
FS2	You understand what a flowchart is and what each symbol means. You can create a simple program using a flowchart which will mostly function as expected. You can create accurate abstractions of real-life situations, making use of decomposition You can use selection and accurate conditions to govern the data flow around your program Your algorithms and commands are mostly in the correct sequenced and	You understand what a spreadsheet is and what it can be used for. You can create simple formulas which will mostly function as expected. You can create accurate formulas using functions most of the time You can create simple charts, with little guidance You can convert some numbers of Decimal and Binary bases	You can differentiate between hardware and software components You can identify the difference between an input and output device most of the time You have some understanding of assistive technology You can complete some simple binary conversions You have some knowledge of the CPU and FDE cycle	You are aware of some of the risks and benefits that come with programs and environments whilst using the internet You can communicate your knowledge in an easy-to-understand manner to your audience You are aware of some factors that contribute to the reliability of internet sources Your use of search engines leads to	You can combine some different types of digital media into a single artifact You can create and manipulate some forms of digital media to a fair standard The media you create is suitable for consumption on one type of digital device You can use a limited range of different types of software to manipulate digital media making some use of the tools available The produced digital artifacts meet some of the needs of the audience

	match some of the requirements of the task Your use of iteration is mostly accurate and creates some shapes You can identify some of the errors in your programs and with some help, debug them You understand the basic concepts of decomposition, abstraction and pattern recognition. You can re-call the different logic gates (AND, OR, NOT) You can recall the different sorting and searching algorithms but find it	You show an awareness of the need for a binary number base in computing You can perform some aspects of binary addition You understand that binary can be used to other things than numbers You have an awareness of characters and character sets You have an awareness of some aspects of encryption You understand that in a computer system, characters are represented	You can describe some differences between the WWW and Internet You can identify most characteristics of wireless vs wired network connections You are aware of some of the benefits and drawbacks of cloud computing You can identify some components involved in creating a network You are aware of some differences between LANs and WANs	relevant results through accurate search terms You are aware of some of known methods of attack used to gain access to personal information You can communicate your knowledge in an easy-to-understand manner to your audience You can show ways to protect data via our password complexity	The produced digital artifacts fulfil some of the purposes of the brief You can make full use of most tools found in software packages You can analyse data using a single metric to identify patterns with limited of accuracy Limited design considerations for the audience will be shown in most aspects of your digital artifacts The usability of any digital artifacts will allow the user to interact with most parts of it

	difficult explain where and when you would use each. You can recognise the use of selection and both types of iteration in any given python program. You can understand how indexing numbers are used to pick out parts of a string or list in python. You can recall the differences between using a for loop and a while loop when programming.	by binary numbers through ASCII and Unicode. You understand how a bitmap graphic is made up of many individual pixels You understand how digital samples are created from sound waves You understand the difference between lossy and lossless compression	You can identify the purpose of all necessary networking protocols You are aware of the necessity for a packet switched network Given a computing scenario you can identify which laws apply to it You recall the definition of AI, model and classification. You can identify examples of decision based and data driven AI models. Describe what plagiarism is with examples.		You use methods of data collection and recording capture some relevant data You show some awareness and consideration for the trustworthiness of some sources data used Your analysis of any data collected uses simple methods which produce mostly meaningful conclusions

	Programming languages and algorithms	Data representation and Modelling	Hardware, Software and Networking	Using Technology safely	Creative Projects
FS3	You accurately comprehend and understand what the function of a flowchart is. You can create working flowcharts for mimics which makes use of all the outputs and inputs available in range of elements the system. Your program is fully functional, and you can debug most of the errors in your programs. Your algorithms are well sequenced, show signs of efficiency and match most of the requirements You can make use of the 'list' data structure	You can confidently navigate around the spreadsheet, using multiple worksheets You accurately comprehend and understand which formula and function should be used. You can create effective charts which are labelled correctly. You can accurately convert numbers of Decimal, Binary and Hexadecimal bases	You can differentiate between hardware and software components including peripherals and internal hardware You can identify the difference between an input and output device You understand what assistive technology is and why it is needed You can complete some binary conversions You understand the idea of the CPU and FDE cycle	You understand most of the risks and benefits that come with some programs and environments whilst using the internet You can communicate your knowledge in an easy-to-understand manner to your audience You are aware of most of the factors that contribute to the reliability of internet sources and can judge the legitimacy of the content	You can combine a range of types of digital media into a single artifact You can create and manipulate most forms of digital media to a reasonable standard The media you create is suitable for consumption on one type of digital device You can use a range of different types of software to manipulate digital media making good use of the tools available

	You have attempted to use of sub programs to break apart the overall program Your use of iteration is mostly accurate and creates shapes of various sides You can identify the errors in your programs and with some help, accurately debug them You can create accurate abstractions of real-world situations, making use of decomposition. You can explain the required input/output rules for each logic gate (AND, OR, NOT)	You show an awareness of the need for a binary number base in computing You can perform binary addition, making use of carries and overflow You understand that binary can be used to represent text, images and sound You have an awareness of characters and character sets You understand the process of converting and sending messages	You understand what AI is You can describe all differences between the WWW and Internet You can identify characteristics of wireless vs wired network connections You are aware of most of the benefits and drawbacks of cloud computing You can identify some components involved in creating a network You are aware of some differences between LANs and WANs	Your use of search engines leads to relevant results through use search terms and Boolean searching techniques You understand most of the threats on networks You can communicate your knowledge in an easy-to-understand manner to your audience You are aware of most of the methods to protect data against the different threats on a network	The produced digital artifacts mostly meet all the needs of the audience The produced digital artifacts fulfil most purposes of the brief You can make full use of most tools found in software packages You can accurately analyse data using multiple metrics to identify patterns Design considerations shown in your artifacts will present the content clearly for the audience to follow The usability of any digital artifacts will allow the user

	You can identify and explain some of the different features of different sorting and searching methods. You can complete a python program which has been partially written for you, to solve a programming challenge. You can apply the AND/OR operators to combine multiple conditions together into a single if statement. You can apply the Elif statement to be able to combine multiple if statements together. You can use indexing to interact with specific items	You understand some aspects of encryption You can encode and decode binary messages using character sets You can explain how different colour pixels are represented in binary You can identify the key factors that affect the quality of digital sound You understand how the algorithm can be improved	You can identify the purpose of all necessary networking protocols You can identify the most suitable protocol for different scenarios You are aware of the necessity for a packet switched network Given a computing scenario you can accurately identify which laws apply to it Explain what bias is and give examples of how an AI might be biased. Describe what a confidence interval means and how AIs use them.		to interact with it with little difficulty You use methods of data collection and recording and capture most relevant data You show a fair level of awareness and consideration for the trustworthiness of most sources data used Your analysis of any data collected uses effective methods which produces mostly meaningful conclusions

	when programming with a string or a list in python.	You understand what the digital divide is and what factors affect it	Explain the positive and negative impacts of using AI to replace people's jobs.		

	Programming languages and algorithms	**Data representation and Modelling**	**Hardware, Software and Networking**	**Using Technology safely**	**Creative Projects**
FS4	You can easily interpret the flow of a program given a flowchart and a mimic with different inputs. You can make efficiently designed programs for mimics which require the use of subroutines. You create flowcharts which are fully working and have been accurately debugged. Your algorithms are consistently well sequenced, efficient and match the requirements perfectly	You can confidently navigate around the spreadsheet, using multiple worksheets, exploring different tabs and buttons You accurately comprehend and understand which formula and function should be used in each spreadsheet and can confidently look for other solutions (formulas) that could be used.. You can create effective charts showing multiple	You can confidently differentiate between hardware and software components including peripherals and internal hardware You can identify the difference between an input and output device You have a good understanding of assistive technology, and which ones would be most suitable for people with different needs You can confidently complete binary conversions You have a good understanding of the CPU and FDE cycle	You fully understand the risks and benefits that come with a wide range of programs and environments whilst using the internet You can communicate your knowledge in a concise and easy to understand manner to your audience	You can combine a wide range of types of digital media into a single artifact You can create and manipulate most forms of digital media to a good standard The media you create is suitable for consumption on most types of different digital devices You can use a wide range of different types of software to manipulate digital media making

	You can make use of sub programs to break apart the overall picture into component parts Your use of iteration is highly accurate and uses variables and mathematical operations to creates shapes of various sides and sizes You can independently identify the all the errors in your programs and accurately debug them You can apply logic gates to real world scenarios. You can explain input/output rules for each logic gate (AND,OR,NOT) and produce accurate truth tables for each.	groups of data, which are labelled correctly. You can accurately convert numbers of Decimal, Binary and Hexadecimal bases You demonstrate a comprehensive understanding of the need for a binary number base in computing You understand the relevance of place values in number bases You can accurately perform binary addition, making use of carries and overflow	You have a good understanding of how AI can be used to help people You can describe the differences between the WWW and Internet You can discuss and compare characteristics of wireless vs wired network connections You are aware of the benefits and drawbacks of cloud computing You can identify all components involved in creating a network You can discuss the differences between LANs and WANs	You are aware of the factors that contribute to the reliability of internet sources and can accurately judge the legitimacy of the content Your use of search engines leads to relevant results through use of efficient and accurate search terms and techniques	efficient use of the tools available The produced digital artifacts meet all the needs of the audience and show some limited coverage of other, non-intended audiences The produced digital artifacts fulfil all purposes of the brief You can make full use of most tools found in software packages You can accurately analyse data using multiple metrics to identify patterns or anomalies

	You can explain clearly perform examples of different sorting and searching methods. You have successfully programmed one of the sorting or searching algorithms in Python or an alternate language. You can develop your own solution to programming challenges without the need for partially completed solutions. You can combine selection and iteration together to form more complex programs which use if statements inside of while/for loops. You understand how to create subprograms and can recall some	You understand that binary can be used to represent text, images and sound You understand characters and character sets You understand the process of converting and sending messages You understand encryption and can accurately perform encryption and decryption You can apply knowledge of encryption to character sets You can evaluate why and how compression is used in images	You can identify the purpose of all necessary networking protocols You can identify the all protocol for different scenarios You are aware of the necessity for a packet switched network You can describe the contents of a packet You can define all relevant laws surrounding networks and computing in general Given a computing scenario you can accurately identify which laws apply to it		Design considerations shown in your artifacts will present the content clearly for the audience to follow The usability of any digital artifacts will allow the user to interact with it with ease Your methods of data collection and recording are efficient, capturing all relevant data You show a good level of awareness and consideration for the trustworthiness of all sources data used

	of the scenarios in which they are useful for programming.	You can describe the factors that affect digital sound quality to others You understand why compression is needed for video transmission and photo storage	Describe possible ethical issues associated with the use of AI for tasks such as self-driving cars. Explain the difference between how supervised and unsupervised models learn.		Your analysis of any data collected uses efficient and effective methods which produces meaningful conclusions

	Programming languages and algorithms	**Data representation and Modelling**	**Hardware, Software and Networking**	**Using Technology safely**	**Creative Projects**
FS5	*All aspects of previous FS level and...* You can explain and use a range of different logic gates for a given number of different scenarios. You can create accurate truth tables for real world scenarios You can explain, perform and analyse which is the most appropriate method for a range of different sorting and searching algorithms.	*All aspects of previous FS level and...* You can explain how plain text is encrypted (with a key) into cyphertext then decrypted back to plain text (with a key). You can perform file size calculations You can write a comparative piece comparing analogue v digital sound	*All aspects of previous FS level and...* Discuss the impact of errors in algorithms on people and society. Evaluate the use of AI to produce work and consider plagiarism in its use. You have a full understanding of all hardware found in a modern computer	*All aspects of previous FS level and...* You fully understand the dangers of using social media and the many threats that try access our data You can communicate your knowledge in a concise and easy to understand manner to your audience You are aware of all methods to protect data against the different threats	*All aspects of previous FS level and...* You can seamlessly combine a wide range of types of digital media into a single artifact You can create and manipulate all forms of digital media to a high standard The media you create is suitable for consumption on all types of different digital devices You can use a wide range of different types of software to manipulate digital media making highly efficient use of the tools available

	You can program one or more of the sorting or searching algorithms in Python and can explain how you solved each issue. You can compare two different approaches to solving a python programming challenge and evaluate which would be the better solution to the problem. You have been exploring with the different skills learnt in lessons by trying to develop your own programs that are not just the required lesson tasks. You are comfortable in applying subprograms to	You can show a sound awareness of all data is stored in binary form and the implications this has on the conversion from analogue media	You have a full understanding of all technology used in networks and how they link together to form the internet	online and when to use these appropriately.	The produced digital artifacts exceed all the needs of the audience and cover that of other, non-intended audiences The produced digital artifacts completely fulfil all purposes of the brief You can make full use of all tools found in software packages You can deeply and accurately analyse data using multiple metrics to identify patterns or anomalies Design considerations shown in your artifacts will present the content clearly and succinctly for the audience to follow The usability of any digital artifacts will allow the user to interact with it intuitively

	break a large program up into lots of separate chunks.				Your methods of data collection and recording are highly efficient, capturing all relevant data You show a high level of awareness and consideration for the trustworthiness of all sources data used Your analysis of any data collected uses highly efficient and effective methods which produces meaningful conclusions

BFS	**A high developed ability of all aspects of a FS5 student.**

DESIGN AND TECHNOLOGY – DESIGNING

	Design Brief	Target Market	Product Analysis	Specification	Design ideas
	Exceptional (Beyond Foundation Stage) As below, but with an exceptional level of detail and use of technical language.				
FS5/BSF	- a detailed analysis and explanation of the given Brief. -Key words are identified and explored further. -exploration of initial thoughts has generated further questions and areas to investigate. -areas and ideas suggested can be linked to Design Specification.	- a detailed understanding of specific targets markets' needs and wants. -example given of how marketing or tailoring a product to suit, could be used to influence a target markets' consumer decisions -link 'needs and wants' criteria to the Design specification	-primary and secondary research carried out on a range of relevant existing products . -can explain in detail the importance of this research - analysis is informed and relevant. -materials, measurements and costings are included. -analysis is linked to specification.	- the specification includes relevant criteria gathered from prior research -aspects such as social and cultural issues are considered with within the specification. - environmental considerations are considered and debated -All decisions can be fully justified.	- designs can be clearly linked to the design specification. -all developments include focused quality drawings (close-ups, exploded) to accompany explanations. -all designs are original and show a high level of creativity.

FS4	-an analysis and explanation of the given Brief. - Most key words are identified some explored further. - some relevant and detailed exploration of initial thoughts. -areas and ideas suggested can be linked to Design Specification.	- demonstrates an understanding of a specific targets markets' needs and wants. -examples given of how tailoring a product to suit could be used to influence a target market -Link some relevant criteria to the Design specification	-primary and secondary research carried out on one or two relevant existing products. - can give some examples of the need for analysis - analysis is informed and mostly relevant. - some materials, measurements and costing are included. -analysis is linked to specification	- the specification includes mostly relevant criteria gathered from prior research -aspects such as social, and cultural issues are mentioned but not always relevant - environmental considerations are considered - Most decisions can be fully justified.	- designs can be clearly linked to the design specification. -most developments include focused quality drawings (close-ups, exploded) to accompany explanations. -most designs are original and show a good level of creativity.
FS3	. -an explanation of the given Brief. - some key words are identified some explored further. - basic exploration of initial thoughts. -some ideas suggested can be linked to Design Specification.	- demonstrates a basic understanding of a specific targets markets' needs and wants. - basic examples given of how tailoring a product to suit could be used to influence a target market -Link some basic criteria to the Design specification	-primary and secondary research carried out on a relevant existing product. - analysis has some detail but is not always relevant. - some materials, measurements and costing are included- but are not always accurate. -basic links made to Design specification	- the specification includes mostly relevant criteria . -environmental considerations are considered and mostly relevant - most decisions can be fully justified.	- designs can mostly be linked to the design specification. - developments include focused mostly quality drawings -most designs are original and show a level of creativity.

FS2	-limited explanation of the given Brief. - one or two key words are identified -some of the initial thoughts are noted down -areas and ideas suggested are not always relevant and not always linked to Design Specification.	- demonstrates an understanding of a specific target market - one or two examples given of how tailoring a product to suit could be used to influence a target market - some links to specification are not always relevant	-secondary research carried out on one existing product. - Analysis is basic with little new information added. -some Materials, measurements and costings are included, but only taken directly from secondary resources. -links to specification are very basic and not always relevant	- the specification includes some relevant criteria - environmental issue is mentioned and is relevant -some inclusions can be justified.	- designs make some connection to Design specification - designs show a basic level of development and skill - design ideas are limited
FS1	- the design brief has been copied down. - one or two key words are identified. - limited exploration of initial thoughts. - initial thoughts are not necessarily relevant to the brief . -little or no thoughts noted that link to future planning.	- can name different target markets. -example given of how different products suit different people. - can list some examples of what they can include in their product to suit the target market.	- secondary research carried out on one existing product. -.analysis is basic with little new information added -.links made are not relevant or show little understanding of the task relevance	- the specification contains some relevant criteria - some inclusions are relevant. .	-designs make a basic reference to design .specification -drawing skill is basic . -design ideas are limited to one or two.

DESIGN AND TECHNOLOGY – MAKING

	Use and selection of equipment and tools	Use and selection of materials	Application of skills and techniques	Quality of outcome	Evaluation
	Exceptional (Beyond Foundation Stage) As below, but with an exceptional level of detail and use of technical language.				
FS5/BSF	- be able to select and use tools and equipment safely and efficiently - confident demonstration of machinery to others. Describe - and apply QA and QC measures - Investigation and understanding of machinery and equipment used in industry	- a confident understanding of a range of materials, their properties and source. - understand the environmental impact of a range of materials - be able to justify the selection of a material - understand and list standard components - be able to offer alternative options for materials and know what would be used in industry.	- be able to join and construct a product so that it functions as designed. - be able to consider and record alternative methods and techniques. - be able to compare and test a range of methods and techniques - investigation and understanding of industrial processes	- be able to use a range of techniques and process to create a quality, demanding product - demonstrate quality of finish to others - product has potential for commercial viability with small modifications - suggest modification to ensure product is viable	- evaluate ideas in detail against the original design specification - organisation of a user test session - include detailed user feedback and responses - respond to user feedback offering a modified version or versions -

FS4	- be able to select and use tools and equipment safely and efficiently - demonstration of machinery to others. - apply QA and QC measures - Investigation of machinery and equipment used in industry	- an understanding of a range of materials, their properties and source. understand the - environmental impact of a range of materials be able to - justify the selection of a material list standard - components be able to offer - an alternative option for materials	- be able to join and construct a product that functions - be able to consider and record alternative methods and techniques. - Some Investigation and understanding of industrial processes	- be able to use a range of techniques and process to create a quality product - demonstrate quality of finish - product has potential for commercial viability with some modifications - suggest modification to ensure product is viable	- evaluate ideas against the original design specification - include detailed - user feedback and responses respond to user feedback offering a modified version
FS3	- .be able to select and use tools and equipment safely and with some efficiency - demonstration of some machinery to others. - a limited application of and QA measures - can name some machinery used in industry	- understanding of a limited range of materials and some properties. be able to - explain the selection of a material list some standard - components - Offer alternative options	- a completed product that has limited functionality. - be able to record alternative methods and techniques. - be able to compare and test a range of methods and techniques - investigation of an industrial - process	- be able to use a range of techniques and process to create a product - product has potential for - commercial viability with some modifications - modifications - modifications suggested are mostly relevant or viable	- evaluate ideas in some relevant detail - include user - feedback some response given to user feedback
FS2	- - be able to select and use a limited range of tools and equipment tools safely - apply a limited range of QA measures - can name a piece of machinery or equipment used in industry	- a basic list of relevant materials, - be able to list a relevant material choice list a - standard component list - an alternative option	- an incomplete product that has some functionality - be able to list an alternative method or techniques. - can name an industrial process	- be able to use a limited range of techniques and process with some accuracy, to create a product product has - requires much modification or improvement to be viable	- relevant evaluation of ideas - include some user feedback limited - response given to feedback
FS1	- be able to select and use appropriate tools or equipment safely	- name a relevant material - explain choice.	- an incomplete product that has limited functionality -	- -be able to use a technique or process to create a product product - has requires much modification or improvement to be viable	- evaluation of ideas is present but contains some irreverent points

DRAMA

	Creating, Developing and Refining ***AO1 – Creating and developing ideas*** ***AO3 – Demonstrating knowledge and understanding*** ***AO4 – Analysing and Evaluating***	**Performing** ***AO2 – Applying theatrical skills in live performance***
BFS	• I continuously give effective creative ideas and justify them, understanding how to use conventions for a purpose. • My use of drama terminology is sophisticated within my explanations and I use it to support my verbal examples. • I am confident in directing my peers and leading a group to create effective work, trying new ideas and conventions. • I am able to analyse and evaluate my own ideas and those of my peers. I regularly use this evaluation to refine our work and make improvements.	• I can use my vocal skills, demonstrating the ability to use a range of vocal features confidently and with ease, demonstrating versatility as a performer. • I can use my movement skills, demonstrating the ability to use a range of physical features confidently and with ease, demonstrating versatility as a performer. • When performing as a character, I do so with energy and commitment. I have considered many attributes of my role to create a developed and rounded character. • My focus when performing is sustained and creates an effective impact on the audience. • I can communicate very effectively to the audience and with other performers through use of clarity and eye contact. • My performance demonstrates thoughtful understanding of style and genre.
FS5	• I continuously give creative ideas and justify them, understanding how to use conventions for a purpose. • My use of drama terminology is becoming sophisticated within my explanations. • I am confident in directing my peers and leading a group to create original work, trying new ideas and conventions. • I am able to analyse and evaluate my own ideas and those of my peers.	• I can use my vocal skills, demonstrating the ability to use a range of vocal features confidently and with ease. • I can use my movement skills, demonstrating the ability to use a range of physical features confidently and with ease. • When performing as a character, I do so with energy and commitment. There is a clear understanding of the role I am playing. • My focus when performing is clear and creates an impact on the audience. • I can communicate effectively to the audience and with other performers through use of clarity and eye contact. • My performance demonstrates understanding of style and genre.

FS4	I am confident in offering creative ideas and using drama terminology in my descriptions. I am able to justify my ideas, showing my knowledge of drama. I engage in the creative process and work well with others, often showcasing leadership skills and supporting others to develop their/our ideas. I am starting to be able to analyse and evaluate my own ideas and those of my peers.	I can use my vocal skills, demonstrating the ability to use a range of vocal features to make my character interesting. I can use my movement skills, demonstrating the ability to use a range of physical features to make my character interesting. When performing as a character, I do so with energy and commitment. There is a clear understanding of the role I am playing. I can communicate clearly to the audience and with other performers through use of clarity and eye contact.
FS3	I can give creative ideas and often use drama terminology in my descriptions. I am starting to be able to justify my ideas, showing my knowledge of drama. I engage in the creative process and work well with others, sometimes showcasing leadership skills.	I can use my vocal skills, demonstrating the ability to use tone, pitch, clarity, projection and pace. I can use my movement skills, demonstrating the ability to use gesture, facial expression, gait and posture. When performing as a character, there is a clear understanding of the role I am playing and a sense of ease. I am starting to communicate clearly to the audience and with other performers through use of clarity and eye contact.
FS2	I sometimes give basic ideas but don't always use drama terminology to explain them. I try to engage in the creative process but am not yet confident in taking a leadership role or supporting others.	I can use my vocal skills on a basic level with some projection, clarity and tone. I can use my movement skills in a basic way with some use of facial expression and gesture. When performing as a character, there is a basic understanding of the role I am playing. I still struggle to always communicate clearly to the audience and with other performers through use of clarity and eye contact.
FS1	I struggle to give ideas and show my knowledge of drama. I don't always engage in the creative process and find it difficult to collaborate.	I struggle to use my voice and/or movement confidently when performing. When performing as a character, it isn't clear who my character is by my choices.

	AO1 Understanding and Inference	AO2 Language	AO2 Structure	AO3 Comparison of writers' ideas & methods	AO4 Personal and Critical Response to Text	LIT Context and Writer's Message
	Beyond 5 - As below, but with insight, independence, flair and increasing sophistication.					
5 **Effective and Excelling**	• Successfully considers a range of writers' ideas as crafted by the author. • Able to give effective and valid explanations of implicit meanings and viewpoints independently. • Consistently embeds a range of appropriately chosen textual detail at all times.	Analyses and evaluates a range of writer's language choices in depth, and can comment accurately on some advanced language, including patterns of language. Uses a wide range of subject terminology accurately, including some more challenging terms. Considers author's intentions in relative depth.	• Analyses and evaluates the effects of a range of writers' structural choices. • Uses more complex subject terminology accurately. • Considers author's intentions in relative depth.	• Makes clear and valid comparisons, evaluating some more challenging and inferential ideas. • Explanations are consistently detailed and apt, considering the author's intentions in depth.	• Evaluates the text clearly and in detail. Appreciates the effects of the writer's methodology and can comment on challenging ideas, using adverbs skilfully. • Comments are firmly rooted in the text, interesting and inferential.	Explores the writer's ideas and attitudes within the social, historical and cultural context of the text. Can consider the varied audiences and the author's possible message. Comments are wellargued, clear and valid.
4 **Consistently enhancing**	• Can successfully express an understanding of writers' purpose and ideas as crafted by the author. • Increasingly understands inferred meanings and can explain.	Explains the effects of a writer's language choices in detail, and attempts to analyse some more advanced language. Uses a range of subject terminology with increasing accuracy. Makes some valid comments about author's intentions.	• Explains the effects of a writer's structural choices in some detail. • Uses subject terminology with increasing accuracy. • Makes some valid comments about author's intentions.	• Makes clear comparisons between texts, and identifies a few implicit ideas. • Explanations are relatively detailed and consistently valid. Begins to explore author's intentions.	• Makes evaluative comments about the text with an understanding of writer's methodology. Can begin to discuss some more challenging ideas, using adverbs and verbs effectively. • Comments are often inferential and rooted in the text.	Explains the writer's ideas and attitudes and connects these to different aspects of context, including how different readers / audiences might react. Comments are detailed and wellexplained, but some minor

						misconceptions might still be evident.

	Begins to embed more relevant textual detail with increasing consistency.					

3 **Competent and Secure**	• Developing understanding of writers' purpose and ideas as the crafter of the text. • Able to attempt some inferences, but there may be errors in understanding / be inconsistent. • More relevant textual detail chosen, but selects obvious, or scaffolded, choices. Often doesn't embed quotations.	• Identifies and explains the effects of a writer's techniques and language choices, but tends to comment on more obvious techniques. Able to use some technical terminology but not always consistently / accurately. • Increasingly links to author's intentions, but still generalises somewhat.	• Explains the effects of some of the writer's structural choices. Able to use some subject terminology about structure but not always accurately / consistently. • Increasingly links to author's intentions, but still generalises somewhat.	• Identifies some similarities and/or differences between texts, but they're mostly obvious. Possibly some implicit comments. • Explanations are clear and mostly valid. Limited consideration of author's intentions.	• Makes some evaluative comments about the text with a growing awareness of the writer's methodology, but still tends to comment on the simpler ideas. May begin to use adverb and verbs when discussing author's purpose. • Comments are more rooted in the text and explained well. May begin to infer.	• Beginning to identify writer's ideas and attitudes in the text and links these to context. • Comments are more detailed, with a number of generalisations and/or misconceptions still evident.
2 **Developing and establishing**	• No obvious misconceptions, but comments are not always linked to writer's ideas / acknowledge that the writing is crafted.	• Some ability to identify some basic language techniques and appropriate words but comments can be simple. • Attempts to use technical terminology, with a number of errors.	• Discusses the sequence of a text in a more detailed manner, however any further comments are inaccurate or generalised.	• Some straightforward links about similarities and/or differences between texts, using simple connectives.	• Offers a straightforward opinion about the text. • Comments are not always well explained, but are generally rooted in the text.	• Shows familiarity with the writer's ideas and text in context whether as a reader now or in the social, historical context.

	Deals successfully with explicit elements of the text. Limited use of textual detail or extended references to the text, not always relevant to the task.	May attempt to discuss author's intentions, but mostly generalises.	May use some limited terminology but comments are mostly inaccurate. May attempt to discuss author's intentions, but mostly generalises.	Explanations more developed, but areas of misunderstanding evident. May focus on one text more than the other.		Comments are slightly more detailed, but misconceptions/ generalisations are evident throughout.
1 **Emerging**	Limited understanding of the text, with some significant misconceptions. Deals purely with explicit, obvious meanings, often inconsistently. May be no textual detail, or inappropriately chosen reference to the text.	A selection of words and phrases may be identified, but any comments are simple or repeat the quotation. Very limited, or no, use of the technical terminology. Numerous errors in identification. May give inaccurate comments on the author's intentions.	Can make basic comments on the sequence of the text, but in a very generalised manner. No use of the terminology. May give inaccurate comments on the author's intentions.	Some ability to comment on texts but no analytical linking or cohesion evident. Explanation minimal or unclear.	Makes very simple, overtly personal comment about the text. Comments are unclear and not linked to the text.	Makes some generalised and very simple comments about the writer's ideas and the text in context.

	AO5 – Communication	A06 – Organisation	AO7 – Sentences and punctuation	AO8 – Vocabulary	AO9 – Spelling (including homophones)
BFS5	Originality, **independence**, flair, sophistication				
5 Effectively excelling	• All communication is effective and engaging. • Reader is fully engaged and responds personally to the writing. • Matching tone / style to audience / purpose / task is embedded and contributes to the meaning.	• Conscious crafting of paragraphs and, crucially, whole text. • Advanced discourse markers to subtly guide the reader effectively and are used to complement the text's purpose.	• Wide range of sentence structures are crafted to heighten reading and emotional impact. • Wide range of punctuation chosen for effect.	• All word choices combine to create a fluent and increasingly engaging tone. • Phrasing is ambitious, and crafted effectively on a number of occasions. • Devices are crafted and appropriately embedded throughout.	Very rare spelling errors of even more complex words.
4 Consistently enhancing	• The communication is clear and effective. • Reader is engaged. • Matching tone / style to audience / purpose / task is embedded.	• Paragraphs are increasingly used for effect. Whole text is well structured. • A variety of more advancing discourse markers are deployed correctly and they create an appropriate effect.	• Conscious use of a range of sentence structures and forms. • Fewer errors with advanced punctuation.	• All word choices combine to create a successful, deliberate tone. • Vocabulary is often ambitious and more successful in complementing the tone. • Devices are embedded throughout and add to the overall effect.	Spelling errors do not impact meaning and mistakes are few.
3 Competent and secure	• The whole piece communicates ideas clearly and tense is secure. • Increasing moments of engagement for the reader. • There is evidence that matching tone / style to audience / purpose / task was considered throughout the piece.	• Paragraphs are used accurately. Structuring of whole piece is accurate. • A variety of discourse markers are starting to be deployed (however, on the other hand, despite)	• Use of simple, compound and complex sentences. • Commas starting to be used in subordinate clauses – mostly accurately. • Beginning to use a wider range of punctuation.	• All word choices are relevant to tone. • Students have begun to experiment with ambitious vocabulary, sometimes inconsistently. • Clear basic devices. Attempts at more complex ones.	Attempting to spell more ambitious words correctly. Some errors.
2 Developing and establishing	• Most communication is clear. • Rare moments of engagement for the reader.	• Text is in a logical order. • Paragraphs are used but not always accurately.	• Use of simple and compound sentences. • Basic punctuation is used correctly. Comma splicing evident.	• Most word choices are relevant to tone. • Some evidence of conscious, but simple, word selection.	Some errors with more complex

	Attempts at matching tone / style to audience / purpose / task are more obvious.	Appropriate time connectives (and, then, firstly, secondly…)	Some errors with more complex punctuation.	Occasional use of devices. They are basic and may not be clear.	spelling patterns.
1 Emerging	Some of their writing communicates ideas clearly but there can be confusion. Reader is not engaged. There are attempts at matching tone and style to the audience, purpose and task.	Text is in a logical order. An inconsistent / limited use of paragraphs.	All sentences are simple. Some compound. Basic punctuation is used correctly most of the time (capitals, full stops)	Some word choices are relevant to tone. Word choices are simple. May attempt simple language devices.	Evidence of phonetic spelling.

ENGLISH: READING					
FS1 – Simple	**FS2 – Some**	**FS3 – Secure**	**FS4 - Clear**	**FS5 – Developed**	**BFS - Confident**
Students are occasionally able to meet the learning intentions but inconsistently and not always successfully, even with significant scaffolding/support.	*Students are sometimes able to meet the learning intentions, still with reliance on scaffolding/support, and with some inconsistency.*	*Students are mainly able to meet the learning intentions but may occasionally need some scaffolding/support, although this is no longer relied upon.*	*Students are clearly able to meet the learning intentions, usually (and mainly) without any reliance on scaffolding/support.*	*Students are consistently and independently able to meet the learning intentions, always without scaffolding/support.*	*Students are confidently and convincingly able to meet (and go beyond) the learning intentions without any scaffolding/support.*
Simple, limited understanding with misconceptions frequently evident. Simple retrieval of explicit ideas, although this is inconsistent and occasionally with errors. Simple/no inference despite heavy support, with frequent errors, and without any awareness of context. Simple selection textual reference, although heavily supported and with frequent errors. Simple or no comments on language/structure despite support, and with frequent errors.	Some understanding mostly demonstrated, sometimes inaccurately and/or inconsistently. Some retrieval of explicit ideas, often with support but with some errors, with some emerging awareness of implicit ideas. Some inference emerging, although always supported and with some errors. Some occasional consideration of context but with some errors. Some selection of textual references, although always supported and with some errors. Some comments on language/structure, although always supported and with some errors.	Secure understanding demonstrated accurately, with less support, and few (if any) errors. Secure response to explicit and implicit ideas, almost always with limited support and with a growing sense of accuracy/independence. Secure inference evident with (limited) support, few (if any) errors, and with an emerging consideration of context. Secure selection and embedding of textual references, with limited support and few errors. Secure relevant comments on language/structure, with some (limited) support and few (if any) errors.	Clear understanding demonstrated, mainly without support or error. Clear response to explicit and implicit ideas within a text, mainly without support or error. Clear inferences made, mainly without support or error, and with a clear consideration of context. Clear, relevant selection of textual references, usually without any support or error, and embedded with a growing confidence. Clear explanation of language/structure, usually without (or with very little) support or error. Clear ability to track voice/ideas, usually without	Developed, detailed understanding demonstrated, always without support and with a growing confidence. Developed, detailed response to explicit and implicit ideas, always without support, and with a growing confidence. Developed, sustained inferences made without support and with an emerging consideration of context, both inside and outside of the text. Developed selection of textual references, embedded smoothly independently and mainly with consistency. Developed analysis of language/structure, mainly	Confident, perceptive understanding demonstrated and with convincing independence. Confident response to explicit and implicit ideas beyond what has been taught in the classroom. Confident, perceptive inferences that consider a multitude of contextual factors. Confident, convincing selection of textual references, integrated seamlessly and confidently to articulate a clear idea. Confident, detailed analysis of language/structure, considering multiple layers and meanings with convincing independence.

Simple and limited/no awareness of voice, despite scaffolding. Simple and limited/no awareness of writer's purpose, despite scaffolding. Simple/no awareness of how texts are linked to one another by their shared universal, timeless themes. *At the bottom of FS1, a student might:* Be unable to read the text without significant support. Articulate words phonetically, rather than as a complete unit. Struggle to comprehend the text, despite extensive scaffolding and support. Have no awareness of there being a writer constructing a text. Have no awareness of any language devices being chosen.	Some awareness of voice, although always supported and with some errors. Some awareness of writer's purpose, although still fairly limited and always with support. Some awareness of how texts are linked to one another by their shared universal, timeless themes but without any independence and with some misconceptions/ errors evident.	Secure ability to track voice/ideas with some (limited) support and few (if any) errors. Secure awareness of writer's purpose with some support (and occasional misconception). Secure, explained awareness of how texts are linked to one another by their shared universal, timeless themes, with very few (if any) misconceptions.	(or with very little) support or error. Clear understanding of writer's purpose, usually without (or with very little) support or error. Clear ability to make connections/links between texts across the curriculum without support and with a clear, emerging awareness of the writer's intent being influenced by the context within which the text was written.	with consistency and some confidence. Developed tracking of voice/ideas, with some consideration of context. Developed understanding of writer's purpose, always without support and with some growing conviction and nuance. Developed ability to make independent connections/comparisons/ links between texts across the breadth of the curriculum, with a developed awareness of the intent of the writer and the context within which the text was written.	Perceptive tracking of voice/ideas with some confidence and awareness of subtleties/nuances. Confident, perceptive understanding of writer's purpose, both as a piece of entertainment and as a social commentary, articulated with conviction and nuance. Confident ability to make independent connections/ links between texts across the breadth of the curriculum, always convincingly articulated, and with a confident awareness of the intent of the writer and the context within which the text was written.

Struggle to refer to a specific moment in the text to support their idea, even verbally.					

ENGLISH: WRITING					
FS1 – Simple	**FS2 – Some**	**FS3 – Secure**	**FS4 - Clear**	**FS5 – Developed**	**BFS - Confident**
Students are occasionally able to meet the learning intentions but inconsistently and not always successfully, even with significant scaffolding/support.	*Students are sometimes able to meet the learning intentions, still with reliance on scaffolding/support, and with some inconsistency.*	*Students are mainly able to meet the learning intentions but may occasionally need some scaffolding/support, although this is no longer relied upon.*	*Students are clearly able to meet the learning intentions, usually (and mainly) without any reliance on scaffolding/support.*	*Students are consistently and independently able to meet the learning intentions, always without scaffolding/support.*	*Students are confidently and convincingly able to meet (and go beyond) the learning intentions without any scaffolding/support.*
Simple, limited communication that, at times, lacks clarity. Simple (or no) awareness of writer's purpose. Simple attempts made to establish a strong voice/character/narrator, not always successfully. Simple or limited vocabulary used with varying degrees of success Simple control over sentence formation, limited to writing mainly in simple SVO sentences with consistent errors (missing subject / verb / object). Simple use of structure, either using limited/sporadic/no paragraphing.	Some clarity in communication, with some inconsistences still evident. Some awareness of purpose but not always executed successfully. Some attempts made to establish a strong voice/character/narrator, with some success. Some use of lower-frequency vocabulary but with a reliance on vocabulary banks provided. Some sense of simple sentence formation using SVO, with some errors still evident. Some awareness of sentence functions using simple and compound sentences to varying degrees of success, but	Secure communication and clarity, with less reliance on scaffolding/support. Secure awareness of purpose, with occasional errors in execution. Secure attempts made to establish a strong voice/character/narrator, mainly with success. Secure use of lower-frequency vocabulary, with less reliance on vocabulary banks provided. Secure awareness of sentence formation using SVO. Secure awareness of sentence functions, using simple, compound, and complex sentences to varying degrees of success.	Clear communication and clarity, mainly without any reliance on scaffolding/ support. Clear understanding of purpose, executed with a growing clarity and control. Clear ability to establish a strong voice/character/ narrator with success. Clear use of lower-frequency vocabulary, with little to no reliance on vocabulary banks provided. Clear variation in sentence functions, using simple, compound, and complex sentences successfully. Clear and conscious paragraph structure used to achieve a clear effect.	Developed communication and clarity, always without scaffolding/support. Developed understanding of purpose, executed with a sustained clarity. Developed, consistent ability to sustain a successful strong voice/character/narrator. Developed use of low-frequency vocabulary for effect, always without any reliance on scaffolding/support. Developed variation in sentence functions, using simple, compound, and complex sentences successfully and independently for a deliberate effect.	Confident communication, constructed with flair, sophistication, and executed with convincing clarity. Confident, convincing execution of purpose used to both empower the writer and manipulate the reader. Confident, consistent ability to sustain a strong voice/character/ narrator, tailored convincingly to task. Confident, independent control of low-frequency vocabulary, used deliberately to both position and manipulate the reader. Confidently varied sentence functions,

Simple to no awareness of basic spelling patterns, with spelling errors being more consistent than occasional. Simple to no awareness of basic punctuation, such as full stops. Simple to no awareness of capitalisation, either at the start of a new sentence or for all proper nouns. Simple/limited understanding of verb agreements when matching the subject and verb of a sentence in tense, aspect, and mood. *At the bottom of FS1, a student might:* Spell words phonetically. Consistently make high-frequency word errors (for example, 'wot', 'thay'). Simple/limited understanding of how to proof-read, demonstrating a lack of awareness.	with some errors. Some conscious paragraph structure used, not always successfully, and with significant reliance on sentence starters. Some awareness of the need for a whole-text structure (probably limited to two paragraphs), executed with some success using sentence frames. Some awareness of basic spelling patterns, with spelling errors being more occasional than consistent. Some control over basic punctuation, such as full stops and commas, with some errors evident (missing full stops, commas splicing, run-on sentences). Some awareness of capitalisation at the start of a new sentence or for all proper nouns, with some inconsistencies.	Secure paragraph structure created, sometimes with reliance on sentence starters. Whole-text structure beginning to emerge that securely transitions writing from one idea to the next with some support. Secure awareness of basic and more challenging spelling patterns, with occasional errors in the more challenging words. Secure control over basic punctuation, such as full stops and commas, with some emerging awareness of more advanced punctuation. Secure awareness of capitalisation at the start of a new sentence or for all proper nouns. Secure understanding of verb agreements when matching the subject and verb of a sentence in tense, aspect, and mood.	Clear whole-text structure built for effect and with less reliance on scaffolding/support. Clear awareness of both basic and challenging spelling patterns, with any minor errors not impacting on clarity. Clear control over both basic and advanced punctuation, including semi-colons, with very few errors. Clear, emerging awareness that punctuation can be used to manipulate the way that a writer responds, with some clear attempts made to do so. Clear awareness of capitalisation at the start of a new sentence or for all proper nouns, with no capitalisation errors present. Clear understanding of verb agreements when matching the subject and verb of a sentence in tense, aspect, and mood.	Developed understanding of how clausal structures can be constructed to manipulate the way a reader thinks/feels/ responds. Developed and cohesive whole-text structure built deliberately for effect and without the use of any scaffolding/support. Developed awareness of both basic and challenging spelling patterns without any errors or support. Developed control over both basic and advanced punctuation, including semi-colons and colons, to deliberately and consciously manipulate the way a reader thinks/feels/ responds to a text. Developed understanding of verb agreements when matching the subject and verb of a sentence in tense, aspect, and mood.	constructed successfully and independently to convincingly achieve a desired effect(s). Confident use of structure, both sentence-level and whole-text, to deliberately and convincingly position and manipulate the reader. Confident awareness of both basic and challenging spelling patterns without any error. Confident control over all types of basic and advanced punctuation, including semi-colons, colons, and parenthesise, to confidently and convincingly manipulate the way a reader thinks/feels/ responds to a text. Confident understanding of verb agreements when matching the subject and verb of a

Handwriting may be almost illegible, possibly to hide misspelled words.	Some understanding of verb agreements when matching the subject and verb of a sentence in tense, aspect, and mood.				sentence in tense, aspect, and mood.

ENGLISH: SPOKEN LANGUAGE

Talking to Others (A011)	Talking with Others (A012	Talking within role-play and drama (AO13)	Studying Spoken Language (AO14)
Talk in purposeful and imaginative ways to explore ideas and feelings, adapting and varying structure and vocabulary according to purpose, listeners and content	Listen and respond to others, including in pairs and groups, shaping meanings through suggestions, comments and questions	Create and sustain different roles and scenarios, adapting techniques in a range of dramatic activities to explore texts, ideas and issues	Understand the range and uses of spoken language, commenting on meaning and impact in both written work and discussion

(Beyond FS Level) Talk is conducted in an exceptional way
(FS5) Talk is conducted in an effective way
(FS4) Talk is conducted in a consistent way
(FS3) Talk is conducted in a competent way
(FS2) Talk is conducted in an inconsistent way
(FS1) Talk is conducted in a limited way

FOOD AND NUTRITION

	Hygiene and Safety	Selecting Equipment	Selecting Ingredients	Finish of Product	Sensory Evaluation	Nutrition	Evaluation
	Exceptional (Beyond Foundation Stage) As below, but with originality, independence and flair						
FS5/BSF	- I understand and am thorough with the personal hygiene rules in a catering kitchen. -I am thorough to keep my work area safe and hygienic. - I apply good practice towards correct storage, preparation and cleaning when working with food.	- I can choose the correct equipment for use with accuracy and precision. - I can use the correct equipment with fine manual dexterity.	-I can follow a recipe with confidence. -I can recognise and explain the function of ingredients for more complex recipes. -I can recognise and use a wide range of food commodities. - I can design my own recipes.	-I can make an excellent quality product which is saleable. - The product is almost catering standard. -I make one or no errors during making.	-I can identify the different characteristics of food – appearance, odour, taste, texture and use an extensive vocabulary to describe food products.	-I can identify all the basic nutrients in food and identify the nutrients in the dishes I make. -I can adapt or change the food to change the nutrient content based on a person's diet.	-I can use constructive criticism to improve the quality of my product and explain how it has been developed.
FS4	- I understand and show the personal hygiene rules in a catering kitchen. - I organise my work area to be safe and hygienic. - I understand the importance of the correct storage, preparation and cleaning when working with food.	- I can choose the correct equipment for use with accuracy. - I can use the correct equipment with accuracy, competent manipulation and coordination.	- I can follow a recipe with occasional support. -I can recognise and explain the function of most ingredients. - I can recognise and use all basic food commodities	-I can make a good quality product with few finishing issues. - I am able to correct simple errors during making with no support.	-I can identify the different characteristics of food – appearance, odour, taste, texture and use a wide vocabulary to describe food products.	-I can identify all the basic nutrients in food and identify the nutrients in the dishes I make.	- I can use customer feedback to improve my product further

FS3	-I'm aware of and I am improving my personal hygiene rules in a catering kitchen. -I am aware of how to organise my work area to be safe and hygienic. - I am aware of the importance of the correct storage, preparation and cleaning when working with food.	- I can choose the correct equipment for use with increased accuracy. - I can use the correct equipment with increased accuracy and manipulation.	-I can follow a recipe with limited support. - I can recognise and explain the function of some ingredients. - I can recognise and use basic food commodities.	-I can make a good quality product with some finishing issues. - I am able to correct simple errors during making with limited support.	-I can identify the different characteristics of food – appearance, odour, taste, texture.	-I can identify all the basic nutrients in food.	-I can give suggestions of further adaptions.
FS2	- I'm working towards improving my personal hygiene rules in a catering kitchen. - I am working towards organising my work area to be safe and hygienic. - I am working towards knowing the importance of the correct storage, preparation and cleaning when working with food.	-I can choose the correct equipment for use with some accuracy. -I can use the correct equipment with some accuracy and show reasonable manipulation.	-I can follow a recipe with support. -I can recognise and explain the function of a couple of ingredients. -I can use basic food commodities.	-I can make a fair quality product with several finishing issues - I am able to correct simple errors during making with support.	-I can identify some basic characteristics of food and use a basic vocabulary to describe food.	-I can identify some basic nutrients in food.	-I can identify problems and suggest solutions.

FS1	-I'm working towards improving my personal hygiene rules in a catering kitchen but don't always get it right. - I am working towards but don't always do the organising of my work area to be safe and hygienic. -I am working towards but don't always know the importance of the correct storage, preparation and cleaning when working with food.	-I can choose the correct equipment for use with limited accuracy. -I can use the correct equipment with limited accuracy and struggle with manipulation.	-I can follow a recipe with lots of support. -I struggle to recognise and explain the function of a couple of ingredients. -I struggle to use basic food commodities.	-I struggle to make a quality product, it has many finishing issues. -I have difficulty correcting errors during making.	-I can identify a few basic characteristics of food and use a limited vocabulary to describe food.	-I can identify a few basic nutrients in food.	-I can give verbal feedback about problems.

GEOGRAPHY

Pre Foundation Stage

- Students have limited understanding of physical and human environments in local areas, the UK, and wider world but are able to describe general common features.
- Students recognise some simple processes and how these contribute to the changes of places and environments.
- Students offer simple explanations for their observations and views about places, and physical and human environments. Appropriate simplistic terminology is used to communicate their ideas.
- Students recognise patterns on a map, use the 4 point compass and construct basic graphs, e.g. bar graphs.
- Students use geographical data to find the highest and lowest values, as well as complete basic calculations e.g. the range of the data.

Foundation Stage 1

- Students show basic understanding of the physical and human geography of their local area, and begin to widen their understanding to examples from the UK and further afield.
- Students recognise physical and human features, offering simple descriptions about their characteristics. Students recognise and describe simple geographical patterns.
- Students understand that people can improve and damage physical and human environments.
- Students begin to present their findings using basic key terminology. They will recognise and use map symbols, the 8-point compass and begin to have a working understanding of 4 figure grid references and straight line distances.
- Students construct a range of graphs, e.g. a bar and line graph, and use the mean and median values.

Foundation Stage 2

- Students' depth of understanding of physical and human geography around their local area and the UK increases, and begins to expand to include the wider world.
- Students describe the physical and human characteristics of these environments on a local and global scale.
- Students describe how different physical and human environments have similarities and differences and how they arise from a variety of physical and human processes.
- Students begin to develop their own geographical questions, briefly discuss their methods, draw some conclusions and offer some evaluation of their investigation.
- Students present their work both graphically and in writing, using more accurate geographical terminology.
- Students describe distributions of physical and human features and can sketch, label and start to annotate sketch maps and photographs in greater depth.
- Students have an increasing working knowledge of OS map skills, use the 8 point compass and can use 4 figure grid referencing with increasing confidence.
- Students show an understanding of the data through statistical skills e.g. mode and modal class.

Foundation Stage 3

- Students begin to understand how the links between physical and human geography create the particular characteristics of different places and begin to think more worldwide.
- Students recognise that physical and human processes link with the physical and human environments, which creates diversity and changes.

- Students will start to understand that the use and management of environments can have consequences and can start to explain how these can result in change.
- Students can begin to develop their own geographical questions, briefly discuss their methods, draw some conclusions and offer some evaluation of their investigation.
- Students present their work both graphically and in writing, using more accurate geographical terminology.
- Students have a working understanding of OS map skills, begin to use 6 figure grid references and describe geographical patterns on maps.
- Students draw a wider range of graphical techniques, including multiple line graphs.
- Students' understanding of data will be demonstrated using simplistic statistical and numerical skills with an increasing attempt to understand trends reflected in the data set.

Foundation Stage 4
- Students recall very basic information about the physical and human region studied and their specific environmental characteristics.
- Students recognise that on the wider scale, places have different regions, and begin to compare them.
- Students understand simple geographical ideas about physical and human processes but not always linked to a specific example.
- Students appreciate that processes help develop geographical patterns, which have their own characteristics for places and the environment.
- Students understand the interrelations between physical and human environments and people, and the sustainable management of these.
- Students conduct a geographical enquiry, collect data (primary and secondary) using appropriate techniques, collate the information and present findings using a number of graphical techniques e.g. bar graphs. Outcomes of the enquiry are simplistic with a limited range of key terminology.
- Students have an improved knowledge of how numerical and statistical skills can be used to describe and analyse geographical data.

Foundation Stage 5
- Students recall basic information about physical and human environments, often limited to a few geographical scales with a basic knowledge of specific locations.
- Students show some recognition of the physical and human processes involved with some appreciation of the resulting geographical patterns.
- Students recognise that people have different values and attitudes to the changes of the physical and human environments, varying dependent on how the landscape is being used and managed.
- Students conduct a geographical enquiry, collect data from primary and secondary sources, collate the information and present their findings using a range of simplistic techniques. Outcomes of the enquiry are simplistic with a range of key terminology used.
- Students can fully recognise the patterns made by physical and human features and use a range of cartographical skills to interpret and analyse the trends. A wide range of OS map skills will be used confidently.
- Students use statistical and numerical skills with increasing ease and include more sophisticated analysis techniques e.g. percentage increase or decrease when analysing data.

Foundation Stage 6
- Students recall basic information about physical and human environments, with a growing appreciation of different scales. They demonstrate simplistic knowledge of location through specific case studies with geographical ideas referred to in a simple manner.
- Students understand simple physical and human processes. Students begin to understand how the different views of people have different effects on how environments are used and managed.

- Students conduct a geographical enquiry, collecting appropriate data from primary and secondary sources. Students make accurate decisions about the data, with limited conclusions attempted and offer an evaluation often focused on one aspect of the enquiry.
- Students have a good understanding of how cartographical and OS skills can be used to describe and interpret geographical patterns.
- Students understand a range of graphical techniques and how to interpret the data presented.
- Students demonstrate a range of graphical skills and interpret different types of photographs from a range of different landscapes.
- Students clearly link photographic evidence to OS maps.
- Students use more sophisticated statistical skills e.g. percentage change or cumulative frequency as a means of analysing data.

Exceeding Foundation Stage

- Students recall a wider variety of information about physical and human environments. They show some understanding of the location of these environments through case study detail with appropriate key terminology used.
- Students recognise the inter-relationships between processes at different scales.
- Students understand that these processes help develop geographical patterns and that these areas have specific characteristics.
- Students understand how the relationship between people and environments inter-link, and trying to achieve sustainable development will affect planning and management of these areas.
- Students conduct a geographical enquiry, identify key questions or hypotheses to support, suggest an appropriate sequence of investigation, and collect appropriate data (primary and secondary) to help support the enquiry. This is collated and presented using simplistic techniques but they begin to produce more sophisticated techniques.
- Students communicate their findings in more detail with plausible conclusions offered, as well as evaluation offered for several aspects of the enquiry.
- Students clearly understand cartographic and OS map skills and use these to interpret patterns of human and physical features at a local, national and worldwide scale.
- Students have good graphical skills and can draw and interpret data on sophisticated graphs e.g. choropleth and flow line maps.
- Students use numerical and statistical skills to interpret data sets, highlighting trends and anomalous values.

HISTORY

	Skill	"What evidence do I have?" Using evidence	"Why do people think that?" Interpretations	"What made something important?" Significance	"Why did things change?" Continuity & change	"Why did things happen?" Cause and consequence
Exceptional	**BFS**	You can explain your own judgements about historical questions using sources beyond those expected.	You can construct your own interpretation, evaluate why it is useful and limited, comparing it to existing Interpretations in their context.	You can explain your own judgements about historical significance using knowledge beyond that expected.	You can explain your own judgements about change and continuity using knowledge beyond that expected.	You can explain and make your own judgements about causation using knowledge beyond that expected.
Effective	**FS5**	You can analyse why a source is useful to a historian. e.g. useful (valuable) or convincing.	You can analyse a number of interpretations and make a judgement about them e.g. which is most convincing based upon the content or provenance.	You can analyse how significance can vary according to different viewpoints e.g. then and now.	You can analyse (examine in detail) change and continuity. e.g. long, short term & Political, Economic, Social.	You can analyse a range of causes and consequences. e.g. long, short term & Political, Economic, Social.
Consistent	**FS4**	You can investigate and make a judgement about evidence e.g. considering Nature, Origin, Purpose.	You can explain reasons for an interpretation, considering viewpoint, purpose, audience and their evidence.	You can investigate different reasons for significance e.g. short-term and long-term impact & make a judgement. At least three of the 5rs.	You can investigate events and make a judgement about change and continuity.	You can investigate links and make a judgement between two causes and consequences.
Competent	**FS3**	You can make inferences from sources to understand events.	You can make inferences from interpretations to understand its message.	You can explain why some people or events are significant. e.g. results, remembered.	You can explain why some changes or continuities are more important than others .	You can explain how one cause and/or consequences are more important than others.

Inconsistent	**FS2**	You can describe what information in a source is useful (valuable).	You can describe different interpretations (points of view).	You can describe and give some reasons why a person or event might be significant.	You can describe why changes have happened in history.	You can describe two causes or consequences, similarities and differences.
Limited	**FS1**	You can describe what sources tell you.	You can describe an interpretation of the past.	You can describe an important person or event or history.	You can describe important changes in history.	You can describe one cause or a consequence.
	PFS	You can identify parts of a source.	You can identify what an interpretation is.	You can identify a significant event.	You can identify a change.	You can identify a cause and consequence.

MODERN FOREIGN LANGUAGES

Speaking

Foundation Stage 1 – Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication

I can give clear one word answers or short sentences.
I give opinions using a few phrases that I know but I don't give reasons for my opinions.
What I want to say is usually clear if I am speaking about something I have just learnt or practised.
I am able to say a few things about what I am learning currently. I
am able to remember a question which I could use in class.

Range and accuracy of language

I repeat the same types of structures and phrases to answer questions.
I have a limited range of vocabulary and I often repeat the same adjectives, structures and opinions.

Pronunciation and intonation

I pronounce some words well, but I may mispronounce quite a few words. There
is little intonation in my voice.

Spontaneity and fluency

I can answer most simple questions when my teacher prompts me with a starter phrase as I struggle to understand some questions. I hesitate quite a bit when answering questions and the delivery of my answers may be quite slow and broken.

Foundation Stage 2: Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication

I can communicate what I want to say quite clearly if I am speaking about something I have just learnt or practised.
I give opinions using a few phrases that I know and I may attempt to give reasons.
I am able to talk about a few different topics and I can remember vocabulary from past topics.
I am able to remember a few different questions that I could use to ask my friend an opinion or to ask my teacher for something.

Range and accuracy of language
I repeat the same types of structures and phrases to answer questions.
I use a limited range of vocabulary but I use a few different adjectives, structures and opinion phrases.
I may try to talk about the past, the present or the future but I still struggle to make my verbs match the tense that I want to talk in.

Pronunciation and intonation My
pronunciation is usually good.
There is some intonation in my voice.

Spontaneity and fluency
I can answer most simple questions when I know what I'm being asked although I ask for help with understanding some questions. I sometimes hesitate when speaking and the delivery of my answers may be quite slow and broken.

Foundation Stage 3: Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication
I can communicate quite clearly in full sentences.
I give opinions using a few phrases that I know and I sometimes give a reason for my opinion.
I am able to talk about a few different topics and I can remember vocabulary from past topics, although sometimes what I want to say is a bit unclear. I am able to create simple questions of my own for both my teacher and my friends.

Range and accuracy of language
I repeat the same types of structures and phrases to answer questions.
I try to use a variety of vocabulary, adjectives and opinion phrases, although I may still repeat some things.
I may try to talk about the past, the present or the future but I sometimes struggle to make my verbs match the tense that I want to talk in.

Pronunciation and intonation My
pronunciation is usually good.
There is some intonation in my voice.

Spontaneity and fluency
I can answer almost all questions when I know what I'm being asked and I occasionally ask for help with understanding questions. I sometimes hesitate when answering questions and the delivery of my answers may be quite slow and broken.

Foundation Stage 4: Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication

I can communicate quite a lot of information clearly and accurately although sometimes what I want to say is a bit unclear.
I regularly give opinions using lots of familiar phrases and I sometimes give reasons for my opinions.
I am able to talk about a variety of different topics and I can switch between topics of conversation with prompts from my teacher. I am able to create simple questions of my own for both my teacher and my friends.

Range and accuracy of language

I try to use a variety of different vocabulary, although sometimes I may repeat the same types of structures and phrases to answer questions.
I sometimes try to use some more complex structures but I often make mistakes with these.
I try to talk about the past, the present and the future on different topics that I have covered and I am generally successful.

Pronunciation and intonation

My pronunciation is generally good.
There is usually quite a bit of intonation in my voice.

Spontaneity and fluency

I can answer almost all questions I am asked.
I sometimes hesitate when answering questions and occasionally I get stuck on what a question means but I tend to work this out on my own. The delivery of my answers is sometimes slow and broken, but generally my speech flows.

Foundation Stage 5: Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication

I can communicate lots of information clearly and I extend most of my answers.
I can expand and develop my answers further when my teacher asks for more information.
I regularly give opinions using lots of familiar phrases and I normally give reasons for my opinions.

Range and accuracy of language

I use a variety of different vocabulary e.g. adjectives, opinion phrases, intensifiers etc.

I can talk about the past, the present and the future on any topic I have covered.
I try to use some more complex structures to show more advanced language.
I am very accurate when I speak, although I sometimes make mistakes when attempting more complex structures.
I am able to talk about a variety of different topics and I can switch between topics of conversation easily. I am able to create questions of my own for both my teacher and my friends.

Pronunciation and intonation

My pronunciation is good, but I may mispronounce the odd word. The intonation in my voice is good.

Spontaneity and fluency

There may be a slight delay when answering a question while I figure out what I have been asked, but I can generally answer all questions my teacher or friend asks me.
I sometimes hesitate when I am speaking, but I give all of the information required.
I am sometimes spontaneous with questions I am not expecting although I often repeat the same structures and phrases.

Beyond Foundation Stage: Speaking

When I am speaking with my teacher, in pair work or in front of the class:

Communication

I consistently develop responses and can talk for quite a long time when answering a question.
I can expand and develop my answers further very well when my teacher asks for more information. What I want to say is very clear.
I consistently give and explain opinions well.

Range and accuracy of language

I use a wide variety of different vocabulary e.g. adjectives, opinion phrases, intensifiers etc and I rarely repeat myself.
I can confidently talk about the past, the present and the future on any topic I have covered but I make the odd minor mistake.
The language I use is very accurate and I use more complex structures confidently to show more advanced language, although I may make minor mistakes when doing so.
I am able to talk about a variety of different topics and I can switch between topics of conversation easily.

Pronunciation and intonation

My pronunciation is consistently very good.
The intonation in my voice is very good.

Spontaneity and fluency
I respond to questions promptly and naturally the majority of the time.
I can answer all questions my teacher or friend asks me.
I am quite spontaneous with questions I am not expecting and my speech flows well.

Writing

In Languages, students will develop higher levels of independence as they move through the Foundation Stages. As they progress, their work will demonstrate a greater understanding of grammar and range of language.

Foundation Stage 1: Writing

When I am writing:

Content
I can communicate some required messages clearly in short simple sentences.
I give simple opinions using phrases that I know.
I can write about what I am learning currently.

Quality of Language
I sometimes use capital letters correctly.
I often rely on repeating the same structures and phrases.
I have a limited range of vocabulary and I often repeat the same adjectives and phrases. I make quite a few mistakes which can make the meaning unclear.

Foundation Stage 2: Writing

When I am writing:

Content
I can communicate some of the information required in simple sentences, although sometimes what I want to say is unclear. I give simple opinions.
I can give simple reasons for my opinions.

Quality of Language

I mostly use capital letters correctly.
I often use the same structures and phrases.
I use some different vocabulary but I often repeat the same adjectives.
I attempt more than one tense (past, present or future) although sometimes I get it wrong I often make mistakes with verbs and tenses but the message is usually clear.
My work is more accurate than inaccurate.

Foundation Stage 3: Writing

When I am writing:

Content
I can communicate quite a lot of the information required clearly and in full sentences, although there may be a couple of times when what I want to say is unclear.
I give opinions.
I give reasons for my opinions.

Quality of Language
I always use capital letters correctly.
I don't always rely on the same structures and phrases.
I use a variety of vocabulary including different adjectives.
I attempt to write about the present and the past or future using time markers even though I make mistakes. My work is more accurate than inaccurate and my verbs are mostly secure.

Foundation Stage 4: Writing

When I am writing independently:

Content
I can clearly communicate most of the information required, sometimes using longer sentences.
I give opinions using different opinion phrases.
I often give reasons for my opinions.
I am aware of formal and informal language and of different types of text for different purposes.

Quality of Language
I attempt complex structures.
I use a good variety of vocabulary including different adjectives.

I attempt to write about the present and the past or future using time markers even though I sometimes make little mistakes. My writing is mostly accurate, despite a few mistakes when I attempt more complex structures.

Foundation Stage 5: Writing

When I am writing independently:

Content
I can clearly communicate my ideas using full sentences and short paragraphs.
I understand what I need to write about, even when questions are given in the Target Language.
I can answer questions giving all of the information required.
I regularly give opinions using lots of familiar phrases and I normally give reasons for my opinions.
I can write different types of texts for different purposes and I know when and how to use formal and informal language.

Quality of Language
I sometimes repeat the same structures and phrases but I use a variety of vocabulary.
I try to use some more complex structures to show more advanced language, even though I sometimes make little mistakes.
My basic grammar is very accurate, so my verbs and agreements are almost always correct.
I occasionally make small mistakes with spelling and accents but these do not affect how clear my ideas are.
I can write about events in the past, the present and the future using time markers and only occasionally make mistakes with my verbs.

Beyond Foundation Stage: Writing

When I am writing independently:

Content
I can clearly communicate my ideas using full sentences and short paragraphs.
I understand what I need to write about, even when questions are given in the Target Language.
I can answer questions giving all of the information required.
I regularly give opinions using a lot of **different** phrases and I **always** give reasons for my opinions.
I can write different types of texts for different purposes and I know when and how to use formal and informal language.

Quality of Language
I use a **wide variety** of vocabulary and I **never** repeat the same structures and phrases.
I **regularly** use more complex structures **well** to show more advanced language, even though I sometimes make little mistakes.

My grammar is very accurate, so my verbs and agreements are almost always correct.
I occasionally make small mistakes with spelling and accents but these do not affect how clear my ideas are.
I can write about events in the past, the present and the future using time markers and **very rarely** make mistakes with my verbs.

MATHS

The levels below represent a 'best fit' model.

Using and applying

Pre Foundation Stage Students use mathematics as an integral part of classroom activities. They represent their work with objects or pictures and discuss it. They recognise and use a simple pattern or relationship. Students select the mathematics they use in some classroom activities. They discuss their work using mathematical language and are beginning to represent it using symbols and simple diagrams. They explain why an answer is correct.

Foundation Stage 1 Students try different approaches and find ways of overcoming difficulties that arise when they are solving problems. They are beginning to organise their work and check results. Students discuss their mathematical work and are beginning to explain their thinking. They use and interpret mathematical symbols and diagrams. Students show that they understand a general statement by finding particular examples that match it.

Foundation Stage 2 Students develop their own strategies for solving problems and use these strategies both in working within mathematics and in applying mathematics to practical contexts. When solving problems, with or without ICT, they check their results are reasonable by considering the context. They look for patterns and relationships, presenting information and results in a clear and organised way, using ICT appropriately. They search for a solution by trying out ideas of their own.

Foundation Stage 3 In order to explore mathematical situations, carry out tasks or tackle problems, students identify the mathematical aspects and obtain necessary information. They calculate accurately, using ICT where appropriate. They check their working and results, considering whether these are sensible. They show understanding of situations by describing them mathematically using symbols, words and diagrams. They draw simple conclusions of their own and explain their reasoning.

Foundation Stage 4 Students carry out substantial tasks and solve quite complex problems by independently and systematically breaking them down into smaller, more manageable tasks. They interpret, discuss and synthesise information presented in a variety of mathematical forms, relating findings to the original context. Their written and spoken language explains and informs their use of diagrams. They begin to give mathematical justifications, making connections between the current situation and situations they have encountered before.

Foundation Stage 5 Starting from problems or contexts that have been presented to them, students explore the effects of varying values and look for invariance in models and representations, working with and without ICT. They progressively refine or extend the mathematics used, giving reasons for their choice of mathematical presentation and explaining features they have selected. They justify their generalisations, arguments or solutions, looking for equivalence to different problems with similar structures. They appreciate the difference between mathematical explanation and experimental evidence. Students develop and follow alternative approaches. They compare and evaluate representations of a situation, introducing and using a range of mathematical techniques. They reflect on their own lines of enquiry when exploring mathematical tasks. They communicate mathematical or statistical meaning to different audiences through precise and consistent use of symbols that is sustained throughout the work.

Beyond Foundation Stage Students critically examine the strategies adopted when investigating within mathematics itself or when using mathematics to analyse tasks. They examine generalisations or solutions reached in an activity and make further progress in the activity as a result. They comment constructively on the reasoning and logic, the process employed and the results obtained. They explain why different strategies were used, considering the elegance and efficiency of alternative lines of enquiry or procedures. They apply the mathematics they know in a wide range of familiar and unfamiliar contexts. They use mathematical language and symbols effectively in presenting a convincing, reasoned argument. Their reports include mathematical justifications, distinguishing between evidence and proof and explaining their solutions to problems involving a number of features or variables. **Number and Algebra**

Pre Foundation Stage Students count, order, combine, increase and decrease quantities when solving problems in practical contexts. They read and write the numbers involved. Students count sets of objects reliably, and use mental recall of addition and subtraction facts to 10. They begin to understand the place value of each digit in a number and use this to order numbers up to 100. They choose the appropriate operation when solving addition and subtraction problems. They use the knowledge that subtraction is the inverse of addition. They use mental calculation strategies to solve number problems involving money and measures. They recognise sequences of numbers, including odd and even numbers.

Foundation Stage 1 Students show understanding of place value in numbers up to 1000 and use this to make approximations. They begin to use decimal notation, in the context of measures and money, and to recognise negative numbers in practical contexts such as temperature. Students use mental recall of addition and subtraction facts to 20 in solving problems involving larger numbers. They add and subtract numbers with two digits mentally and numbers with three digits using written methods. They use mental recall of the 2, 3, 4, 5 and 10 multiplication tables and derive the associated division facts. They solve whole-number problems involving multiplication or division including those that give rise to remainders. They use simple fractions that are several parts of a whole and recognise when two simple fractions are equivalent. Students use their understanding of place value to mentally multiply and divide whole numbers by 10 or 100. When solving number problems, they use a range of mental methods of computation with the four operations, including mental recall of multiplication facts up to 10 x 10.

Foundation Stage 2 When solving number problems, they use a range of mental methods of computation with the four operations, including mental recall of multiplication facts up to 10 x 10 and quick derivation of corresponding division facts. They select efficient strategies for addition, subtraction, multiplication and division. They recognise approximate proportions of a whole and use simple formulae expressed in words. Students use their understanding of place value to multiply and divide whole numbers and decimals. They order, add and subtract negative numbers in context. They use and interpret coordinates in all four quadrants.

Foundation Stage 3 Students use all four operations with decimals to two places. They solve simple problems involving ratio and direct proportion. They calculate fractional or percentage parts of quantities and measurements, using a calculator where appropriate. They construct, express in symbolic form and use simple formulae involving one or two operations. They use brackets appropriately. Students order and approximate decimals when solving numerical problems. They evaluate one number as a fraction or percentage of another. They find and describe in words the rule for the next term or nth term of a sequence where the rule is linear.

Foundation Stage 4 Students order and approximate decimals when solving numerical problems and equations, using trial and improvement methods. They understand and use the equivalences between fractions, decimals and percentages, and calculate using ratios in appropriate situations. They add and subtract fractions by writing them with a common denominator. They formulate and solve linear equations with whole-number coefficients. They represent mappings expressed algebraically, and use Cartesian coordinates for graphical representation interpreting general features. When making estimates,

students round to one significant figure and multiply and divide mentally. They solve numerical problems involving multiplication and division with numbers of any size, using a calculator efficiently and appropriately.

Foundation Stage 5 Students understand the effects of multiplying and dividing by numbers between 0 and 1. They understand and use proportional changes, calculating the result of any proportional change using only multiplicative methods. They find and describe in symbols the next term or nth term of a sequence where the rule is quadratic. They use algebraic and graphical methods to solve simultaneous linear equations in two variables. Students solve problems that involve calculating with powers, roots and numbers expressed in standard form. They manipulate algebraic formulae, equations and expressions, finding common factors and multiplying two linear expressions. They sketch and interpret graphs of linear and quadratic.
Students choose to use fractions or percentages to solve problems involving repeated proportional changes or the calculation of the original quantity given the result of a proportional change. They evaluate algebraic formulae or calculate one variable, given the others, substituting fractions, decimals and negative numbers. They solve inequalities in two variables. They sketch and interpret graphs of cubic and reciprocal functions, and graphs that model real situations. They solve simultaneous equations in two variables where both equations are linear. They solve problems using intersections and gradients of graphs.

Beyond Foundation Stage Students understand and use rational and irrational numbers. They determine the bounds of intervals. They understand and use direct and inverse proportion. In simplifying algebraic expressions, they use rules of indices for negative and fractional values. In finding formulae that approximately connect data, they express general laws in symbolic form. They solve simultaneous equations in two variables where one equation is linear and the other is quadratic.

Shape and Space

Pre Foundation Stage When working with 2-D and 3-D shapes, students use mathematical language to describe properties and positions. They measure and order objects using direct comparison, and order events. Students use mathematical names for common 3-D and 2-D shapes and describe their properties, including numbers of faces, edges and vertices. They distinguish between straight and turning movements, recognise angle as a measurement of turn, and right angles in turns. They begin to use everyday non-standard and standard units to measure length and mass.

Foundation Stage 1 Students classify 3-D and 2-D shapes in various ways using mathematical properties such as reflective symmetry for 2-D shapes. They use non-standard units, standard metric units of length including finding perimeters, capacity and mass, and standard units of time, in a range of contexts. They reflect simple shapes in a mirror line. They choose and use appropriate units and tools, interpreting, with appropriate accuracy, numbers on a range of measuring instruments.

Foundation Stage 2 Students use and make geometric 2-D and 3-D patterns, scale drawings and models in practical contexts. They find areas of simple shapes. They identify all the symmetries of 2-D shapes. They make sensible estimates of a range of measures in relation to everyday situations.

Foundation Stage 3 When constructing models and drawing or using shapes, students measure and draw angles to the nearest degree and use language associated with angles. They know the angle sum of a triangle and that of angles at a point. They convert one metric unit to another. They understand and use the formula for the area of a rectangle. Students recognise and use common 2-D representations of 3-D objects. They know and use the properties of quadrilaterals. They devise instructions for a computer to generate and transform shapes and paths. . They understand and use appropriate formulae for areas of plane rectilinear figures and volumes of cuboids when solving problems.

Foundation Stage 4 They solve problems using angle and symmetry, properties of polygons and angle properties of intersecting and parallel lines, and explain these properties. They devise instructions for a computer to generate and transform shapes and paths. They understand and use appropriate formulae for finding circumferences and areas of circles when solving problems. They appreciate the imprecision of measurement and recognise that a measurement given to the nearest whole number may be inaccurate by up to one half in either direction. They understand and use compound measures, such as speed.

Foundation Stage 5 Students understand and apply Pythagoras' theorem when solving problems in two dimensions. They calculate lengths, areas and volumes in plane shapes and right prisms. They enlarge shapes by a fractional scale factor, and appreciate the similarity of the resulting shapes. They determine the locus of an object moving according to a rule. Students understand and use congruence and mathematical similarity. They use sine, cosine and tangent in right-angled triangles when solving problems in two dimensions. Students sketch the graphs of sine, cosine and tangent functions for any angle. They calculate lengths of circular arcs and areas of sectors. They appreciate the continuous nature of scales that are used to make measurements.

Beyond Foundation Stage Students sketch the graphs of sine, cosine and tangent functions for any angle, and generate and interpret graphs based on these functions. They use sine, cosine and tangent of angles of any size, and Pythagoras' theorem when solving problems in two and three dimensions. They construct formal geometric proofs. They calculate the surface area of cylinders and volumes of cones and spheres.

Statistics

Pre Foundation Stage Students sort objects and classify them, demonstrating the criterion they have used. They collect data to answer questions. Students sort objects and classify them using more than one criterion. When they have gathered information to answer a question or explore a situation, students record results in simple lists, tables, diagrams and block graphs, in order to communicate their findings.

Foundation Stage 1 Students extract and interpret information presented in simple tables and lists. They construct charts and diagrams to communicate information they have gathered for a purpose, and they interpret information presented to them in this form. Students generate and answer questions that require the collection of discrete data which they record using a frequency table. They understand and use an average and range to describe sets of data. They construct and interpret simple line graphs.

Foundation Stage 2 Using technology where appropriate: students group data in equal class intervals if necessary, represent collected data in frequency diagrams and interpret such diagrams. Students understand and use the mean of discrete data. They compare two simple distributions using the range and one of the mode, median or mean. . They understand and use the probability scale from 0 to 1.

Foundation Stage 3 Students interpret graphs and diagrams, including pie charts, and draw conclusions. They collect and record continuous data, choosing appropriate equal class intervals over a sensible range to create frequency tables. They construct and interpret frequency diagrams. They construct pie charts. They find and justify probabilities and approximations to these by selecting and using methods based on equally likely outcomes and experimental evidence, as appropriate. They understand that different outcomes may result from repeating an experiment.

Foundation Stage 4 They draw conclusions from scatter diagrams, and have a basic understanding of correlation. They use measures of average and range, with associated frequency polygons, as appropriate, to compare distributions and make inferences. When dealing with a combination of two

experiments, they identify all the outcomes. When solving problems, they use their knowledge that the total probability of all the mutually exclusive outcomes of an experiment is 1.

Foundation Stage 5 Students specify hypotheses and test them by designing and using appropriate methods that take account of variability or bias. They determine the modal class and estimate the mean, median and range of sets of grouped data, selecting the statistic most appropriate to their line of enquiry. They understand relative frequency as an estimate of probability and use this to compare outcomes of experiments. Students interpret and construct cumulative frequency tables and diagrams. Students estimate the median and interquartile range and use these to compare distributions and make inferences. They understand how to calculate the probability of a compound event and use this in solving problems. Students interpret and construct histograms

Beyond Foundation Stage Students understand how different methods of sampling and different sample sizes may affect the reliability of conclusions drawn. They select and justify a sample and method to investigate a population. They recognise when and how to work with probabilities associated with independent, mutually exclusive events.

MUSIC

	Performing		Composing	Disciplinary Knowledge	Tier 3 Vocabulary
FS5 *Foundation Stage 5*	Perform music with **technical challenges**	**Fluent** and **with expression**	Compose with **competence**	**Accurate** knowledge of a range of musical elements	Musical terminology used **accurately**
		Mostly fluent			
		Some fluency			
FS4 *Foundation Stage 4*	Perform music with **some technical challenges**	**Fluent** and **with expression**	Composition is **mostly successful**	**Mostly accurate** knowledge of a **range** of musical elements	**Appropriate** use of musical terminology
		Mostly fluent			
		Some fluency			
FS3 *Foundation Stage 3*	Perform music with **limited technical challenge**	**Fluent** and with **some expression**	Compose creating **some successful** musical ideas	**Mostly accurate** knowledge of **some** musical elements	**Sometimes** uses **appropriate** musical terminology
		Mostly fluent			
		Some fluency			
FS2 *Foundation Stage 2*	Perform music with **limited technical challenge**	**Fluent**	Composition **lacks effective development**	**Mostly accurate** knowledge of **some** musical elements with **some errors**	**Sometimes** uses **appropriate** musical terminology with **minor errors**
		Mostly fluent			
		Some fluency			
FS1 Foundation Stage 1	Perform **simple pieces** with	**Fluent**	Compose with **limited development**	**Some** knowledge of musical elements	**Inconsistent** use of musical terminology
		Mostly fluent			
		Some fluency			

PE

FS		Knowledge	Demonstrate Skills	Decision Making & Application	Evaluation
1	Limited	Recall basic information such as teaching points, basic rules, etc.	Basic skills lacking in technical accuracy and timing. May need extra support	Struggles to respond to playing / performing conditions. Fails to create opening to take on opportunities	Identify some personal strengths and areas to develop in own performance
2	Inconsistent	Identify basic knowledge points: key terms, rules, techniques etc.	Can perform basic skills in isolation; these sometime may break down when under pressure.	Misjudgements are made Can apply tactical changes but not successful Not able to capitalise on opponents weaknesses	Able to identify own and others strengths and areas to develop during isolated practice
3	Competent	Understand key terms and knowledge points and be able summarise learning	Able to demonstrate skills in competitive situations May only be able to demonstrate or repeat a basic skill	Attempts to adapt performance to opponent with some success. Applies tactical changes in response to opponents actions (with some errors)	Able to identify your own and others strengths and areas to develop in a game or conditioned game
4	Consistent	A broad range of knowledge and understanding from key areas such as rules, skills, fitness, etc.	Demonstrates skills with various levels of consistency Chooses appropriate skill in most situations Starting to be effective in a game	Starting to select appropriate tactics to bring about change in performance. Able to respond to opponents actions successfully	Able to explain the impact that strengths and areas to develop have on a game and suggest improvements

5	Effective	Be able to link a range of knowledge and understanding from key areas such as rules, skills, fitness, etc.	Perform skills consistently when under pressure Starting to influence a game	Creates opportunities to dominate in performances Effectively winning games	Can explain strengths and areas to develop, looking for patterns in performance- give recommendations to improve performance through skills practices

RELIGIOUS STUDIES (RS)

	Knowing about and understanding religions and worldviews	**Expressing and communicating** ideas related to religions and worldviews	**Gaining and deploying** the skills for studying religions and worldviews
BFS	• Analyse arguments clearly, justifying perspectives • Refer to and unpick the context and meaning of scripture • Make relevant reference to scripture	• Synthesise research using different disciplines • Appraise various dimensions of religion	• Use varied methods of study to research ultimate questions • Considerable accuracy in the use of SPAG
FS5	• Evaluate diverse beliefs, perspectives, sources of wisdom and ways of life • Examine responses to ultimate questions • Express a well-supported personal viewpoint, showing appreciation of differing views	• Explain ideas creatively and coherently, using the main methods of religious study • Appreciate various dimensions of religion • Express personal reflections with expertise	• Evaluate questions and arguments personally and critically • Explain the significance of beliefs on the life on the believer
FS4	• Appraise different understandings of religion and worldviews • Explain the impact of beliefs on individuals and communities	• Express insights into questions, giving coherent accounts of beliefs and ideas • Respond critically to questions • Logical chains of reasoning leading to judgement(s)	• Enquire into and interpret ideas, sources and arguments • Articulate beliefs, values and commitments clearly
FS3	• Explain the impact of and connections between ideas and practices, linking different viewpoints • Appreciate different understandings of religion and worldviews	• Explain diverse ideas and viewpoints clearly in various forms • Explain your own opinion in a mature and meaningful way	• Investigate and explain why religions and worldviews matter • Reasoned consideration of different points of view
FS2	• Describe religions and worldviews • Connect ideas	• Describe your opinion giving relevant reasons • Give thoughtful responses using different forms of expression	• Apply ideas about religions and worldviews thoughtfully • Respond creatively to key concepts
FS1	• Describe stories and artefacts, suggesting meanings for sources of wisdom, festivals and worship • Discuss ideas and express an opinion	□ Ask questions and give opinions about religions, beliefs and ideas	• Consider and discuss questions, ideas and various points of view • Collect, use and respond to ideas
PFS	□ Recall, name and talk about materials of religious and nonreligious significance	□ Observe, notice and recognise religious and nonreligious materials	□ Notice and find out about religions and worldviews

SCIENCE – BIOLOGY

Pre-Foundation Stage

- Students use their knowledge about living things to describe the basic conditions [for example, a supply of food, water, air, light] that animals and plants need in order to survive.
- They **recognise** that living things grow and reproduce through the study of plant, animal reproduction. Students should be able to name the main organs involved in plant and animal reproduction.
- They sort living things into groups, using simple features. They describe the basis for their groupings [for example, number of legs, shape of leaf]. Identifying objects as living or non-living using MRSGREN.
- They **recognise** that different living things are found in different places [for example, ponds, woods].
- Students use their knowledge and understanding of basic life processes [for example, growth, reproduction] when they **describe** differences between living and non-living things.
- Recognise and provide simple explanations for changes in living things [for example, diet affecting the health of humans or other animals, lack of light or water altering plant growth, drug and alcohol affecting growth of foetus].
- They **identify** ways in which an animals and plants are suited to their environment [for example, a fish having fins to help it swim, Cacti having spines].

Foundation Stage 1

- Students **describe** some processes and phenomena related to organisms, their behaviour and the environment, drawing on scientific knowledge and understanding and using appropriate terminology, for example using food chains to describe feeding relationships in terms of transfer of energy between plants and animals in a habitat. Plants requiring sunlight as a producer in order to be the source of chemical energy for other organisms for respiration.
- They recognise that evidence can support or refute scientific ideas, such as in the identification and grouping of living things.
- They recognise some applications and implications of science, such as the use of predators to control pest populations. The use of pesticides on crops leading to bioaccumulation. Identify a way to treat bacterial infections through antibiotics.

Foundation Stage 2

- Students **describe** processes and phenomena related to organisms, their behaviour and the environment, drawing on abstract ideas and using appropriate terminology, for example the main functions of plant and animal organs and how these functions are essential and give examples of organ systems which could include; the circulatory, respiratory and digestive system for animals and the main organs of a flowering plant related to reproduction.
- They **explain** processes and phenomena, in more than one step or using a model, such as the main stages of the life cycles of humans and flowering plants, describe the route that food takes through the digestive system.

- They **apply** and use knowledge and understanding in familiar contexts, such as different organisms being found in different habitats because of differences in environmental factors, for example give a range of reasons why a camel can live in a hot environment and a polar bear to live in a cold environment.
- They **recognise** that both evidence and creative thinking contribute to the development of scientific ideas, for example the work of Carl Linnaeus on developing a system for classifying living organisms.
- They **describe** applications and implications of science, such as solving some of the health problems that arise when organ damage occurs.

Foundation Stage 3

- Students **describe** processes and phenomena related to organisms, their behaviour and the environment, using abstract ideas and appropriate terminology, for example simple cell structure and function. Students can use the word equation for photosynthesis and respiration.
- They take account of a number of factors or use **abstract** ideas or models in their explanations of processes and phenomena, such as environmental factors affecting the distribution of organisms in habitats. Describe how a model lung can explain the mechanism of breathing and its importance for providing a reactant needed for respiration.
- They **apply** and use knowledge and understanding in unfamiliar contexts, such as a food web in a habitat. Identify the different organs within an organism and use them to explain the different organ systems and their importance.
- They **describe** some evidence for some accepted scientific ideas, such as the causes of variation between living things for example; the research done by Watson and Crick. A comparison can be made between creationism and evolution and the evidence for each described.
- They **explain** the importance of some applications and implications of science, such as the use of selective breeding, an explanation for bioaccumulation, Eutrophication and their impact on the environment and the organisms living there.

Foundation Stage 4

- Students **describe** a wide range of processes and phenomena related to organisms, their behaviour and the environment, using abstract ideas and appropriate terminology and sequencing a number of points, for example recalling the balanced symbol equation for respiration and photosynthesis and drawing a pyramid of numbers and biomass using data provided.
- They make links between different areas of science in their explanations. They apply and use more abstract knowledge and understanding, in a range of contexts, such as inherited and environmental variation. **Explain** the use of enzymes in digestion and give an example of an enzyme in the human body. **Describe** how carbon can move between living organisms and the atmosphere.
- They **explain** how evidence supports some accepted scientific ideas, such as the structure and function of cells. They **explain**, using abstract ideas where appropriate, the importance of some applications and implications of science for example the implication of antibiotic resistance on health care. **Explore** the ethical issues surrounding subjects such as; cloning, genetic engineering.

Foundation Stage 5

- Students demonstrate **extensive** knowledge and understanding related to organisms, their behaviour and the environment. They use and apply this effectively in their descriptions and explanations, identifying links between topics, for example relating cellular structure of organs to their associated life processes. How organ systems work together for the functioning of the human body for example; the circulatory and respiratory systems.
- They **interpret**, **evaluate** and **synthesise** data from a range of sources and in a range of contexts, for example environmental data from fieldwork, using quadrats to estimate populations and biodiversity. Interpreting and synthesising data for predator-prey relationships, the effect of temperature and pH on enzymes.
- They show they understand the relationship between evidence and scientific ideas, and why scientific ideas may need to be changed, for example the short-term and long-term effects of pollution and the links to global warming. Explain how scientific ideas have changed, based on experimental evidence, for example Van Helmont.
- They **describe** and **explain** the importance of a wide range of applications and implications of science, such as relating photosynthesis and respiration to the cycling of carbon from living to non-living things including how carbon can be locked up, e.g: Fossil Fuels and carbon sinks. Explain the impact of deforestation, increased population, and combustion on levels of carbon in the atmosphere.

Beyond Foundation Stage

- Students demonstrate both breadth and depth of knowledge and understanding of organisms, their behaviour and the environment. They apply this effectively in their descriptions and explanations, for example; explaining the advantage of different forms of chlorophyll for photosynthesis. The ability to explain why different types of cells contain different organelles. For example, the need for muscle cells to contain many mitochondria.
- They interpret, evaluate and synthesise data, from a range of sources in a range of contexts, and apply their understanding to a wide range of biological systems.
- They demonstrate an understanding of how scientific knowledge and understanding changes, building on processes such as questioning, investigating and evidence-gathering, for example in the study of global climate change through manipulating data to identify trends and suggest correlation between data.
- They describe and explain the importance of a wide range of applications and implications of science in familiar and unfamiliar contexts, such as addressing problems arising from global climate change, explaining in detail the impact on environment, economic and social issues arising. Suggest and explain how problems can be combatted by science. For example, cloning pigs for human transplants, genetically engineering crops to help third world problems, producing biofuels for a sustainable resource

Exceptional Performance

- Students must be working consistently above and beyond all the descriptors listed above.

SCIENCE – CHEMISTRY

Pre-Foundation Stage

Students identify a range of common materials and know about some of their properties. They describe similarities and differences between materials. They sort materials into groups and describe the basis for their groupings in everyday terms [for example, shininess, hardness, smoothness].

They describe ways in which some materials are changed by heating or cooling or by processes such as bending or stretching.

Students use their knowledge and understanding of materials when they describe a variety of ways of sorting them into groups according to their properties.

Examples include: elements, rocks, metals etc.

They explain simply why some materials are particularly suitable for specific purposes [for example, glass for windows, copper for electrical cables].

They recognise that some changes [for example, the freezing of water] can be reversed and some [for example, the baking of clay] cannot, and they classify changes in this way.

Foundation Stage 1

Students recall keywords when supplied with a definition

Students describe some processes and phenomena related to materials and their properties, drawing on scientific knowledge and understanding. For example;

- Describing changing state by using scientific terminology such as freezing, melting etc.
- Describing observations of a chemical reaction,
- Describing properties e.g. malleable, brittle, high melting point etc.

Students recognise that evidence can support or refute scientific ideas, such as;

- The classification of reactions as reversible and irreversible.
- Brownian motion supports the theory of atoms.
- Chemical tests (e.g. limewater) can be used to identify products made in a chemical reaction.
- An increase in temperature supports the idea that chemical reactions release energy. A change in indicator colour identifies acids, alkalis and neutral solutions

Students recognise some applications and implications of science, such as;

- The safe use of acids and alkalis (implications are skin burns and harmful to eyes) Plants can be used as medicines

Foundation Stage 2

Students describe processes and phenomena related to materials, their properties and the Earth, drawing on abstract ideas and using appropriate terminology, for example;

- Describing changing state in terms of particles.
- Describing observations of a chemical reaction and state what causes these observations.
- Describing combustion of fuels, using ideas about reacting with oxygen and energy being released.
- Describe a pattern in reactivity by drawing on the outcomes of displacement reactions.
- Describing elements, compounds and mixtures using particle diagrams
- Identifying an acid or alkali using indicators

They explain processes and phenomena, in more than one step or using a model, such as;

- Drawing a shell diagram to represent an atom.
- When provided with the names of reactants and products, construct a word equation to show what happens in a chemical reaction. Explaining melting, evaporating etc. using the particle model.

They recognise that both evidence and creative thinking contribute to the development of scientific ideas, such as;

- Basing separation methods for mixtures on physical and chemical properties. Patterns helped Mendeleev develop the periodic table.

They describe applications and implications of science, such as;

- The uses of metals based on their specific properties The benefits and drawbacks of the use of fossil fuels.

Foundation Stage 3

Students describe processes and phenomena related to materials and their properties, using abstract ideas and appropriate terminology, for example;

- Describing changing state in terms of particles.
- Describing observations of a chemical reaction and state what causes these observations.
- Describing combustion of fuels, using ideas about reacting with oxygen and energy being released.
- Describe a pattern in reactivity by drawing on the outcomes of displacement reactions. Describe elements as solid, liquid or gases based on melting and boiling points.

They take account of a number of factors or use abstract ideas or models in their explanations of processes and phenomena, for example;

- Drawing a shell diagram to represent an atom.
- Using observations or use reactants **or** products **provided** to construct a word equation in order to model a chemical reaction.
- Explaining melting, evaporating etc. using the particle model.
- Use chemical formula to deduce the elements present and the number of atoms.

They explain the importance of some applications and implications of science, for example;

- The production of new materials with specific desirable properties
- The separating of crude oil to obtain useful fuels and other products
- Uses of carbonates to reduce indigestion

Foundation Stage 4

Students describe a wide range of processes and phenomena related to materials and their properties, using abstract ideas and appropriate terminology and sequencing a number of points, for example

- Describe and explain the process of chromatography

They make links between different areas of science in their explanations, such as

- Between the nature and behaviour of materials and their particles.
- Explaining melting, evaporating etc. using the particle model and ideas about energy breaking forces between particles.
- Using ideas about changing states and the particle model to explain how distillation works

They apply and use more abstract knowledge and understanding, in a range of contexts, such as;

- The particle model of matter.
- Symbols and formulae for elements and compounds.
- Naming compounds from chemical formula.
- Using balanced symbol equations to represent chemical reactions.

They explain how evidence supports some accepted scientific ideas, such as

- Reactions of metals with acid or water support the reactivity series of metals. Reflection of alpha particles supports the idea of an atom having a nucleus.

They explain, using abstract ideas where appropriate, the importance of some applications and implications of science, such as the need to consider the availability of resources, and environmental effects, in the production of energy and materials.

Foundation Stage 5

Students demonstrate extensive knowledge and understanding related to materials and their properties. They use and apply this effectively in their descriptions and explanations, identifying links between topics, for example

- Students link understanding of atoms and bonds with energy and temperature changes to describe reactions as exothermic or endothermic.
- Students use ideas about particles and energy to explain why increasing temperature speeds up the rate of a chemical reaction.
  - Describe and explain the process of continental drift.

They represent common compounds by chemical formulae and use these formulae to form balanced symbol equations for reactions.

They show they understand the relationship between evidence and scientific ideas, and why scientific ideas may need to be changed. For example;

- Newlands periodic table was changed due to Mendeleev's version including gaps for undiscovered elements. Rutherford's gold leaf experiment disproved the plum pudding model.

They describe and explain the importance of a wide range of applications and implications of science. (Consistent level 6's for this thread would suggest that students and explain a **wide range** of applications and implications)

Beyond Foundation Stage

They apply this effectively in their descriptions and explanations, identifying links and patterns within and between topics, for example relating the properties of materials to the nature of their constituent particles.
They interpret, evaluate and synthesise data from a range of sources in a range of contexts, and apply their understanding to a wide range of chemical systems, such as explaining chemical behaviours that do not fit expected patterns.
They demonstrate an understanding of how scientific knowledge and understanding changes, building on processes such as questioning, investigating and evidence-gathering.
They describe and explain the importance of a wide range of applications and implications of science in familiar and unfamiliar contexts.

Exceptional Performance
Students must be working consistently above and beyond all the descriptors listed above.

SCIENCE – PHYSICS

Pre-Foundation Stage

Students communicate observations of changes in light, sound or movement that result from actions for example,

- switching on a simple electrical circuit,
- pushing and pulling objects

They recognise that sound and light come from a variety of sources and name some of these.

- TV/ radio
- Torch
- Sun
- People

Students know about a range of physical phenomena and recognise and describe similarities and differences associated with them for example

- sound, light and water waves

They compare the way in which devices for example,

- bulbs
- motors
- resistors

work in different electrical circuits.

They compare the

- brightness or colour of lights
- the loudness or pitch of sounds from looking at a waveform.
- the current or voltage from looking at ammeters or voltmeters

They compare the movement of different objects in terms of speed or direction.

Students use their knowledge and understanding of physical phenomena to link cause and effect in simple explanations for example,

- a bulb failing to light because of a break in an electrical circuit,
- the direction or speed of movement of an object changing because of a push or a pull,
- an object being weightless because of distance from a gravitational field due to a massive object such as a planet.

They begin to make simple generalisations about physical phenomena for example,

- explaining that sounds they hear become fainter the further they are from the source
- or gravitational fields become fainter the further they are from the source
- or EM radiation become fainter the further they are from the source

Foundation Stage 1

Students describe some processes and phenomena related to energy, forces and space, drawing on scientific knowledge and understanding and using appropriate terminology, for example:

- The observed position of the sun in the sky over the course of a day. Describe what is emitted from the nucleus in radioactive decay.

They recognise that evidence can support or refute scientific ideas,

- such as sounds being heard through a variety of materials.
- recognise CMBR and Redshift support big bang theory.
- moons of Jupiter and phases/ size of Venus supports heliocentric theory and disproves geostationary.

They recognise some applications and implications of science, such as

- the use of electrical components to make electrical devices.
  magnetic fields and moving wires generates electricity in power stations.

-

link density to materials needed to make boats.
- link sound topic to how ear defenders work

Foundation Stage 2

Students describe processes and phenomena related to energy, forces and space, drawing on abstract ideas (an idea given in the question or reading off a graph) and using appropriate terminology, for example

- ‘balanced forces’ or ‘unbalanced forces’. Linked to gradient of a graph

They explain processes and phenomena, in more than one step such as

- the operation of an electric bell,
- convection currents,
- the weight of an object on a see-saw (moments),

life cycle of a star.

They explain processes and phenomena, using a model, such as

- the length of a day or a year.
- Current and voltage in circuits.

They apply and use knowledge and understanding in familiar contexts. E.g.

- moments on a see saw,
- convection in a room or oven,

wavelength of a water wave

conduction in a metal rod.
- reflection in a mirror

They recognise that both evidence and creative thinking contribute to the development of scientific ideas, such as

objects being seen when light from them enters the eye.
big bang theory
- heliocentric vs geocentric.

They describe applications and implications of science, such as

- the ways sound can be produced and controlled, for example in musical instruments.
- uses of alpha, beta and gamma radiation.
- uses of EM radiation

Read data from graphs

Use formula as given in data sheet e.g. force from f=ma not m from f=ma

Foundation Stage 3

Students describe processes and phenomena related to energy, forces and space, using abstract ideas (they give the idea not given in question or shown on graph) and appropriate terminology, for example:

- Electric current as a way of transferring energy.
- Ionization of atoms by rubbing or ionizing radiation.
- Balanced or unbalanced forces linked to acceleration or constant speed with no hint given They take account of a number of factors in their

  explanations of processes and phenomena, for example

- in the relative brightness of stars and planets (due to size and distance).
- increased strength electromagnet because of number or turns or current or iron core.

They also use abstract ideas or models, for example

- sustainable energy sources
- the refraction of light (model as one side of car slows down in mud or line of soldiers marching).

They apply and use knowledge and understanding in unfamiliar contexts.

- conduction in penguins feet,
- EM radiation wavelength, amplitude etc.,
- reflection linked to phases of the moon convection at the see side.

moments balancing a crane.

They describe some evidence for some accepted scientific ideas,

- (conservation of energy) such as the transfer of energy by light, sound or electricity, a (wave model of light) the refraction and dispersion of light.

They explain the importance of some applications and implications of science, such as

- the responsible use of unsustainable sources of energy.
- safety when using Ionising radiation
- safety with loud noise

Manipulate formulas to change the subject and get correct numerical answer.

Get correct unit (just one term m, s, kg, N etc. not m/s or Nm)

Foundation Stage 4

Students describe a wide range of processes and phenomena related to energy, forces and space, using abstract ideas and appropriate terminology and **sequencing** a number of points, for example

- how energy is transferred by radiation or by conduction.
- electric bell workings
- life of different stars

They make links between different areas of science in their explanations, such as

- between electricity and magnetism.
- static electricity and ionising radiation
- pressure (hydraulics) and moments

They apply and use more abstract knowledge and understanding in a range of contexts, such as
the appearance of objects in different colours of light.

- resistance in parallel circuits

They explain how evidence supports some accepted scientific ideas, such as

- the role of gravitational attraction in determining the motion of bodies in the solar system.

They explain, using abstract ideas where appropriate, the importance of some applications and implications of science, such as

- the uses of electromagnets uses of transformers.

Use compound measures appropriately. Such as

- m/s for speed,
- Nm for moment
- N/m^2 for pressure

Foundation Stage 5

Students demonstrate extensive knowledge and understanding related to energy, forces and space, for example

- the passage of sound waves through a medium.
- flow of current in a parallel circuit

They use and apply this effectively in their descriptions and explanations, identifying links between topics.

They interpret, evaluate and synthesise data from a range of sources and in a range of contexts. They show they understand the relationship between evidence and scientific ideas, and why scientific ideas may need to be changed, such as

- the developing understanding of the structure of the solar system. [Heliocentric or geocentric]

They describe and explain the importance of a wide range of applications and implications of science, such as

- relating the dissipation of energy during energy transfer to the need to conserve limited energy resources.

They carry out multi-step calculations

- force at different side of a moment system.
- force at different side of hydraulic system
- initial or final speed rather than change in speed.
- more than 3 term questions

Beyond Foundation Stage

Students demonstrate both breadth and depth of knowledge and understanding of energy, forces and space. They apply this effectively in their descriptions and explanations, identifying links and patterns within and between topics, for example

- understanding how models like the particle model are useful in explaining physical phenomena,
  - such as how sweating causes cooling.
  - density
  - speeds of sound

They interpret, evaluate and synthesise data from a range of sources in a range of contexts and apply their understanding to a wide range of data on energy efficient physical systems.
They demonstrate an understanding of how scientific knowledge and understanding changes, building on processes such as questioning, investigating and evidence gathering, for example through the role of artificial satellites and probes in communications and space exploration and theories about the start of the universe, big bang or steady state theory.
They describe and explain the importance of a wide range of applications and implications of science in familiar and unfamiliar contexts, such as alternative methods of electricity generation.

Exceptional Performance
Students must be working consistently above and beyond all the descriptors listed above.