



	Knowledge and aspiration	Experiment and refine	Skill	Creative outcomes
BFS	An independent highly developed ability of Fo	oundation Stage 5		
FS5 Foundation Stage 5	Research - I independently research artists and themes and find my own relevant inspiration. Inspiration - Artist links are always clear, relevant, and explained within my work. I am able to independently take this inspiration and make it my own.  Knowledge - I understand how and why art movements have evolved and can express my informed opinion of art using correct terminology.	Experiment - I independently experiment with a range of media and combine media in successful outcomes.  Refine - I always improve my ideas/techniques and skills and have a range of options. Manipulation of media shows improvement as work progresses.	<b>Drawing</b> - I show high ability in observation, ideas and insights. My drawings show a high level of accurate detail, and the style is relevant to my way of working. <b>Media manipulation</b> - I show a highly developed skilful manipulation of a range of media showing high levels of detail. Outcomes are relevant to intentions and alterations are made independently as needed. My presentation is of a high standard and all sketchbook pages are planned and well executed.	Outcomes - My final outcomes show a high level of skill are well refined and my development is clear throughout. I create a creative personal response realising my plans.
FS4 Foundation Stage 4	Research - I research artists and themes suggested by my teacher and find my own inspiration. Inspiration - Artist links are always clear, relevant and explained within my work. Knowledge - I understand how art movements have evolved and can use some correct terminology.	Experiment - I experiment with media and make successful decisions.  Refine - I improve my ideas/ techniques and skills on my own using the success criteria as guidance. Manipulation of media is improving as work progresses.	Drawing - I am able to record observations, ideas and insights. My drawings show a good level of detail and are observed accurately. Media manipulation - I show a skilful manipulation of a range of media showing good levels of detail. Outcomes are relevant to intentions and alterations are made as needed.	Outcomes - My outcomes show an improved level of skill but are largely led by my teacher. My creativity is developing as I study more artist.
FS3 Foundation Stage 3	Research - I am starting to make decisions about what inspiration I take from artists that have been suggested by my teacher. Inspiration - Artist links are clear and relevant. Knowledge - I am developing an understanding of how art movements have evolved.	<b>Experiment</b> - I experiment with media making successful decisions with help from my teacher. <b>Refine</b> - I sometimes improve my ideas/ techniques and skills on my own using the success criteria as guidance.	<b>Drawing</b> - I am able to record observations, ideas and insights. My pencil control is developing and some details/ proportions are recorded accurately. <b>Media manipulation</b> - I experiment with a range of media and am beginning to manipulate materials as desired.	Outcomes - My outcomes show a developed level of skill but are led by my teacher.
FS2 Foundation Stage 2	Research - I can find relevant information and images of artists work suggested by my teacher. Inspiration - I am starting to take inspiration from artists. Knowledge - I am beginning to understand how art movements have changed over time.	<b>Experiment</b> - I experiment with a range of media selected by my teacher. <b>Refine</b> - I improve my ideas/techniques and skills when prompted by my teacher.	Drawing - I show some a bility to record observations, ideas and insights. My pencil control needs further improvement as some details/ proportions aren't recorded accurately.  Media manipulation - I experiment with a range of media selected by my teacher. I am attempting to manipulate media as desired.	Outcomes - My outcomes show an improvement of skill but are led by my teacher.
FS1 Foundation Stage 1	Research - I can find information and images of artists work suggested by my teacher. Inspiration - I appreciate artists work but it does not influence my own yet. Knowledge - I know that art movements have changed over time but I am not sure how or why.	<b>Experiment</b> - I explore a range of media as instructed by my teacher. <b>Refine</b> - I sometimes improve my ideas/techniques and skills when prompted by my teacher.	<b>Drawing</b> - I show limited ability to record observations, ideas and insights. My basic shapes are recognisable but proportions and details are often inaccurate. <b>Media manipulation</b> - I explore a range of media as instructed by my teacher. Limited ability to manipulate media as desired.	Outcomes - My skills are still improving and the response is led by my teacher.





	Knowing about and understanding religions and world views	Expressing and communicating ideas related to religions and worldviews	Gaining and deploying the skills for studying religions and worldviews
BFS Beyond Foundation Stage	I can analyse arguments clearly, justifying perspectives. I refer to and unpick the context and meaning of scripture. I make relevant reference to scripture.	I synthesise research using different disciplines. I appraise various dimensions of religion.	I use varied methods of study to research ultimate questions. I have considerable accuracy in the use of spelling, punctuation and grammar.
FS5 Foundation Stage 5	I evaluate diverse beliefs, perspectives, sources of wisdom and ways of life. I examine responses to ultimate questions. I can express a well-supported personal viewpoint, showing appreciation of differing views.	I explain ideas creatively and coherently, using the main methods of religious study. I appreciate various dimensions of religion. I express personal reflections with expertise.	I evaluate questions and arguments personally and critically. I can explain the significance of beliefs on the life of the believer.
FS4 Foundation Stage 4	I can appraise different understandings of religion and worldviews. I can explain the impact of beliefs on individuals and communities.	I express insights into questions, giving coherent accounts of beliefs and ideas. I respond critically to questions. I apply logical chains of reasoning leading to judgement(s).	l enquire into and interpret ideas, sources and arguments. I articulate beliefs, values and commitments clearly.
FS3 Foundation Stage 3	I can explain the impact of and connections between ideas and practices, linking different viewpoints. I appreciate different understandings of religion and worldviews.	I can explain diverse ideas and viewpoints clearly in various forms. I can explain my own opinion in a mature and meaningful way.	I can investigate and explain why religions and worldviews matter. I apply reasoned consideration of different points of view.
FS2 Foundation Stage 2	I can describe religions and worldviews. I can connect ideas.	I can describe my opinion giving relevant reasons. I give thoughtful responses using different forms of expression.	I can applyideas about religions and worldviews thoughtfully. I respond creatively to key concepts.
FS1 Foundation Stage 1	I can describe stories and artefacts, suggesting meanings for sources of wisdom, festivals and worship. I can discuss ideas and express an opinion.	l ask questions and give opinions about religions, beliefs and ideas.	I consider and discuss questions, ideas and various points of view. I can collect, use and respond to ideas.
PFS Pre-Foundation Stage	I can recall, name and talk about materials of religious and non-religious significance.	I observe, notice and recognise religious and non-religious materials.	I notice and find out about religions and worldviews.





	Communication	Data	The computer
BFS Beyond Foundation Stage	I can demonstrate how to set up a network and discuss all the relevant interlinking components such as hardware, protocols, IP and MAC addressing.	I understand how computers represent sound, images and numbers confidently in binary. I can perform complex SQL commands. I can give multiple suggestions on how to keep data safe online from a range of varying threats.	I understand the difference between high and low level programming languages and the need for translators. I can effectively evaluate a range of storage types and suggest relevant options based on scenario
FS5 Foundation Stage 5	I can articulate how cloud computing is used as a range of services (Saas) I can identify an online threat and explain suitable prevention methods. I am aware of basic network protocols for the transmission of data online.	I can perform basic SQL commands. I am able to create a fully functioning spreadsheet from scratch to solve a given problem. I can explain how colour depth and resolution affect the quality and size of an image.	I can explain what is meant by virtual memory and in what circumstances it would be used. I understand the term disk defragmentation. I understand what an embedded system is.
FS4 Foundation Stage 4	I understand the basic hardware involved in setting up network communication. I can explain what is meant by cloud computing and compare it to other storage forms.	I am able to create graphs and charts in spreadsheets. I am able to use IFFunctions in spreadsheets. I understand what is meant by SQL in a database. I know how images are represented in a computer. I have the ability to calculate in binary.	I understand how the key components of a computer's hardware work together. I understand what utility software is and how it helps a computer. I can explain how The Cloud may be a suitable alternative to physical storage methods.
FS3 Foundation Stage 3	I can explain how the internet works and am aware of multiple network topologies. (LANs and WANs) I know how to communicate effectively online depending on the age range. I can explain the benefits that come from setting up a network.	I can use functions in spreadsheets. I amable to perform complex queries using multiple fields in a database. I understand what is meant by different data types.	I can make suggestions on suitable storage devices for a given file.
FS2 Foundation Stage 2	I understand common threats online such as viruses, grooming and ransomware attacks. I can identify some benefits of creating networks	I can perform calculations in spreadsheets. I have the ability to perform basic queries in a database. I can sort and filter data. I understand how computers use binary to represent numbers.	I can explain the different individual components of a computer's hardware. I understand the difference between primary and secondary storage and can give examples.
FS1 Foundation Stage 1	I understand what is meant by a network. I know the difference between the internet and the world wide web. I can suggest multiple ways to report concerns online.	I can tell the difference between data and information. I can add data and make simple calculations in spreadsheets. I understand what makes up a database and how data is stored.	I can give examples of input and output devices. I understand sensors obtain data as an input. I can give examples of hardware and software. I know of the key components of a computer's hardware.
PFS Pre-Foundation Stage	I can suggest ways to keep safe online. I understand what is inappropriate online. I can explain how to report inappropriate issues online.	I know what data is and can give examples. I can interpret data in a spreadsheet or database but am unable to use it.	I know of the basic principles of a computer system (Input, process, output). I understand that all aspects of a computer have to be programmed using a specific language. I understand computers are only as intelligent as the human programming them.





	Information Technology (IT)	Algorithms	Programming
BFS Beyond Foundation Stage	I can comment critically on the consequences of the current uses of computing, including social, legal and ethical issues. I can explain emerging technologies and their implications for the future use of ICT.	I am able to design solutions that depend on smaller instances of the same problem (recursion). I am able to make suitable changes to an existing algorithm to make it more effective and streamlined.	I can write complex programs utilising many different skills that create effective solutions to a given problem. Code I write is always commented thoroughly and debugged efficiently.
FS5 Foundation Stage 5	I can create creative projects using a wide range of software applications that meet the desired audience. I can explain how technology can impact either positively or negatively on society, the individual, or the environment. I can successfully create digital artefacts for a desired audience and function	I am able to evaluate the effectiveness of algorithms and use logical reasoning to explain how an algorithm works. I can represent an algorithm in a structured language.	I can pass a parameter to a function. I can make a 2D array and use it effectively. I can create my own procedures and functions. I know when to use a ppropriate variables (local or global). I know when to use a FOR loop over a WHILE. I can solve problems through multiple solutions.
FS4 Foundation Stage 4	I can justify my choices of and independently combine and use multiple digital devices, internet and services and application software to achieve said goals. I can evaluate the trustworthiness of digital content. I can explain how technology can positively impact society and individuals	I can create multiple algorithms to solve a singular problem and articulate features of each. I amable to use a nested loop within an algorithm.	I can use a FOR loop. I can fix syntax and logical errors in code. I can create basic solutions to a range of problems and explain their reasoning. I can embed Boolean logic in to my code. My code may include comments with some errors.
FS3 Foundation Stage 3	I can use most software applications with little support to create basic documents that generally meet the needs of an audience. I can identify which legislation has been breached in different scenarios. I know how to communicate effectively online depending on the age range.	I am able to explain why algorithms are necessary and can link them to real world computing concepts. I am able to add loops in to an algorithm. I can make a search or sort algorithm.	I can use an IF ELSE statement. I can create a 1D list. I can use more than one operand when programming. I understand Boolean logic.
FS2 Foundation Stage 2	I know of legal aspects in computing such as The Data Protection Act, Copyright and The Computer Misuse Act.	I am able to create a basic algorithm in the form of a flowchart and embed selection (IF and ELSE).	I understand the different data types used in programming and can use each appropriately. I can create an IF statement.
FS1 Foundation Stage 1	I can identify areas for improvement within my work and the work of others. I can make improvements to my own work after feedback. I can collect, organise and present data that is suitable for purpose.	I can follow basic logical algorithms. I can explain what is meant by abstraction, decomposition and selection.	I can read a basic program and explain what will happen. I understand why instructions need to be accurate for computers. I can use the input function. I can spot basic errors in a program. My code regularly contains errors
PFS Pre-Foundation Stage	I can create, store and edit files using appropriate files and folder names independently. I can choose suitable images and text for topic.	I understand what an algorithm is and am able to demonstrate examples.	I can use basic print command in Python. I can use some operators in Python.



# **CADCAM- Design (Key Stage 3)**



	Exploring the task	Exploring the user	Product Analysis	Specification	Design Ideas
FS5 Foundation Stage 5	I can give detailed analysis and explanation of the given brief. I can identify key words and explore them further. I explore initial thoughts in order to generate further questions and areas to investigate. My ideas are linked to design requirements.	I give a detailed understanding of specific users' needs and wants. I give examples of how marketing or tailoring a product could be used to influence a target market's consumer decisions. I link the user 'needs and wants' criteria to the design requirements. I consider stakeholders.	I carry out primary and secondary research on a range of relevant existing products. I can explain the importance of my own research. My analysis is informed and relevant. I include materials, measurements and costings. My analysis leads into the design requirements.	My specification includes relevant criteria gathered from prior research. I consider and debate social, cultural and environmental aspects. All my decisions are fully justified.	My designs can be clearly linked to the design specification. I use a range of techniques to communicate design ideas appropriately. My designs are creative and avoid design fixation. My design developments are progressive. My final design is presented clearly to communicate effectively.
FS4 Foundation Stage 4	I can analyse and explain the given brief. I identify most key words and explore some further. I explore in detail some relevant initial thoughts. The areas and ideas I suggest can be linked to the design requirements.	I demonstrate an understanding of a specific users' needs and wants. I give some examples of how tailoring a product to suit could be used to influence a target market. I link some relevant criteria to the design requirements.	I carry out primary and secondary research on a couple of relevant existing products. I can give some examples of the need for analysis. My analysis is informed and mostly relevant. I include some materials, measurements and costing are included. Analysis is linked to requirements.	My specification includes mostly relevant criteria gathered from prior research. I mention aspects such as social, and cultural issues. I take account of environmental considerations. Most of my decisions can be fully justified.	My designs are clearly linked to specification. I communicate ideas using a range of techniques. Most of my designs are original and show a good level of creativity. Most of my design developments are progressive. My final design is presented and communicated effectively.
FS3 Foundation Stage 3	I explain the given brief. I identify and explore further some key words. I explore initial thoughts at a basic level. Some of my ideas can be linked to the design requirements.	I demonstrate a basic understanding of a specific users' needs and wants. I give basic examples of how tailoring a product to suit could be used to influence a target market. I link some basic criteria to the design requirements.	I carry out primary and secondary research on a relevant existing product. My analysis has some detail but is not always relevant. I include some materials, measurements and costings but they are not always accurate. I make basic links to the design requirements.	My specification includes mostly relevant criteria. I take account of environmental considerations and these are mostly relevant. Most of my decisions can be fully justified.	My designs can mostly be linked to the design specification. I use some different techniques to communicate design ideas. Most of my designs are original and show a level of creativity. Some of my design developments are progressive.
FS2 Foundation Stage 2	I give a limited explanation of the given brief. Some of my initial thoughts are noted down. The areas and ideas I suggest are not always relevant or linked to the design specification.	I demonstrate an understanding of a specific user. I can give an example of how tailoring a product could be used to influence a target market. I make some links to the design requirements.	I can carry out secondary research on one existing product. I can give a basic analysis of a product. I include some materials, measurements and costings from secondary resources. I make basic links to the specification.	My specification includes some relevant criteria. I mention at least one basic environmental issue that is relevant. Some of my inclusions can be justified.	My designs make some connection to the design specification. My designs show a basic level of development and skill. My design ideas are limited.
FS1 Foundation Stage 1	I can copy the design brief. I identify one or two key words. I give a limited exploration of my initial thoughts.	I can give examples of different users. I can list some examples of what to include in my product to suit the target market.	I carry out secondary research on one existing product. I cando a basic analysis of the product.	My specification contains some relevant criteria. Some of my inclusions are relevant.	My designs make a basic reference to the design specification. I have basic drawing skill. My design ideas are limited to one or two and there is little evidence of development.





	Use and selection of equipment and tools	Use and selection of materials	Application of skills and techniques	Quality of outcome	Evaluation
FS5 Foundation Stage 5	I can select and use tools, equipment and software safely, efficiently and independently. I can confidently demonstrate CAD software and CAM. I can describe and apply QA and QC measures. I can investigate and understand machinery and equipment used in industry.	I confidently understand a range of materials, their properties and source. I understand the environmental impact of a range of materials. I can justify the selection of a material. I understand and can list standard components. I can offer alternative options for materials and know what would be used in industry.	I can join and construct a product so that it functions as designed. I consider and record alternative methods and techniques. I can compare and test a range of methods and techniques. I can investigate and understand industrial processes.	I use a range of techniques and processes to create a quality, demanding product. I am ableto demonstrate quality of finish to others. My final product has potential for commercial viability with small modifications. I suggest modifications to ensure my product is viable.	I evaluate ideas in detail against the original design specification. I undertake a user test session. I include detailed user feedback and responses. I respond to user feedback offering a modified version or versions.
FS4 Foundation Stage 4	I select and use tools and equipment safely and efficiently and appropriate software independently. I can demonstrate CAD and CAM to others. I apply QA and QC measures. I can investigate the machinery and equipment used in industry.	I understand a range of materials and their properties, source and the environmental impact. I justify the selection of a material. I can list standard components. I can offer an alternative option for materials.	I am able to join and construct a product that functions. I am able to consider and record alternative methods and techniques. I can carry out some investigation and show some understanding of industrial processes.	I use a range of techniques and processes to create a quality product. I can demonstrate quality of finish. My final product has the potential for commercial viability with some modifications. I can suggest some modifications to my product.	I evaluate ideas against the original design specification including detailed user feedback and responses. I respond to user feedback offering a modified version.
FS3 Foundation Stage 3	I can select and use tools and equipment safely and with some efficiency. I can demonstrate some CAD/CAM to others. I apply some QA measures. I can name some machinery used in industry.	I understand a limited range of materials and some properties. I can explain the selection of a material. I can list some standard components. I can offer alternative options.	I make a completed product that has some functionality. I record alternative methods and techniques. I compare and test a range of methods and techniques. I can investigate an industrial process.	I use a range of techniques and processes to create a product. My final product has potential for commercial viability with modifications. The modifications I suggest are mostly relevant or viable.	I evaluate ideas in some relevant detail including user feedback. I give some responses to user feedback.
FS2 Foundation Stage 2	I can select and use a limited range of software tools and equipment safely. I can apply a limited range of QA measures. I can name a piece of machinery or equipment used in industry.	I can give a basic list of relevant materials with some relevance. I can give a standard component list. I can offer an alternative option.	I can produce an incomplete product that has limited functionality. I can list an alternative method or techniques. I can name an industrial process.	I use a limited range of techniques and processes with some accuracy to create a product. My product requires significant modification or improvement to be viable.	I give relevant but limited evaluation of ideas. I include some user feedback. I give limited responses to feedback.
FS1 Foundation Stage 1	I can select and use appropriate tools or equipment safely.	I can name a relevant material. I can explain my choice of material.	I can produce an incomplete product with little functionality.	I can use a technique or process to create a product. My product requires much modification or improvement to be viable.	I evaluate ideas is present but my evaluation contains some irrelevant points. I give limited user feedback.





	Creating, Developing and Refining	Performing • Applying theatrical skills in live performance
BFS  Beyond Foundation Stage	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 newideas 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 Foundation Stage 5	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 myvocal 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 Foundation Stage 4	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 myvocal 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 Foundation Stage 3	I can give creative ideas and often use drama terminology in my descriptions. I a m 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 myvocal 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 Foundation Stage 2	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 myvocal 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 Foundation Stage 1	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.





	Understanding and Inference (AO1)	Language (AO2)	Structure (AO2)
<b>BFS</b> Beyond Foundation Stage	As for Foundation Stage 5, but with insight, independent	ence, flair and increasing sophistication.	
FS5 Foundation Stage 5	I successfully consider a range of writers' ideas as crafted by the author. I amable to give effective and valid explanations of implicit meanings and viewpoints independently. I consistently embed a range of appropriately chosen textual detail at all times.	I analyse and evaluate a range of writer's language choices in depth, and can comment accurately on some advanced language, including patterns of language. I use a wide range of subject terminology accurately, including some more challenging terms. I consider the author's intentions in relative depth.	I analyse and evaluate the effects of a range of writers' structural choices. I use more complex subject terminology accurately. I consider the author's intentions in relative depth.
FS4 Foundation Stage 4	I can successfully express an understanding of writers' purpose and ideas as crafted by the author. I increasingly understand inferred meanings and can explain. I am beginning to embed more relevant textual detail with increasing consistency.	I can explain the effects of a writer's language choices in detail, and attempts to analyse some more advanced language. I use a range of subject terminology with increasing accuracy. I make some valid comments about author's intentions.	I can explain the effects of a writer's structural choices in some detail. I use subject terminology with increasing accuracy. I make some valid comments about the author's intentions.
FS3 Foundation Stage 3	I am developing an understanding of a writer's purpose and ideas as the crafter of the text. I am able to attempt some inferences, but there may be errors or inconsistencies in my understanding. I choose more relevant textual detail, but I tend to select obvious, or scaffolded, choices. I often don't embed quotations.	I can identify and explain the effects of a writer's techniques and language choices, but tend to comment on more obvious techniques. I am able to use some technical terminology but not always consistently or accurately. I increasingly link to the author's intentions, but still generalise somewhat.	I can explain the effects of some of the writer's structural choices. I amable to use some subject terminology about structure but not always accurately or consistently. I increasingly link to author's intentions, but still generalise somewhat.
FS2 Foundation Stage 2	I have no obvious misconceptions, but my comments are not a lways linked to the writer's ideas nor acknowledge that the writing is crafted. I deal successfully with explicit elements of the text. I limit use of textual detail or extended references to the text, not always relevant to the task.	I show some ability to identify some basic language techniques and appropriate words but my comments can be simple. I attempt to use technical terminology, with a number of errors. I may attempt to discuss the author's intentions, but mostly generalise.	I can discuss the sequence of a text in a more detailed manner, however any further comments are inaccurate or generalised. I may use some limited terminology but my comments are mostly inaccurate. I may attempt to discuss the author's intentions, but mostly generalise.
FS1 Foundation Stage 1	I show limited understanding of the text, with some significant misconceptions. I deal purely with explicit, obvious meanings, often inconsistently. There may be no textual detail in my writing, or I give inappropriately chosen references to the text.	I can identify a selection of words and phrases, but my comments are simple or repeat the quotation. I have very limited, or no, use of the technical terminology. I make numerous errors in identification. I may give inaccurate comments on the author's intentions.	I can make basic comments on the sequence of the text, but in a very generalised manner. I show no use of the terminology. I may give inaccurate comments on the author's intentions.





	Comparison of writers' ideas & methods (AO3)	Personal and Critical Response to Text (AO4)	Context and Writer's Message (LIT)
<b>BFS</b> Beyond Foundation Stage	As for Foundation Stage 5, but with insight, independent	ence, flair and increasing sophistication.	
FS5 Foundation Stage 5	I make clear and valid comparisons, evaluating some more challenging and inferential ideas. My explanations are consistently detailed and apt, considering the author's intentions in depth.	I evaluate the text clearly and in detail. I appreciates the effects of the writer's methodology and can comment on challenging ideas, using adverbs skilfully. My comments are firmly rooted in the text, interesting and inferential.	I explore the writer's ideas and attitudes within the social, historical and cultural context of the text. I can consider the varied audiences and the author's possible message. My comments are well argued, clear and valid.
FS4 Foundation Stage 4	I makes clear comparisons between texts, and identify a few implicit ideas. My explanations are relatively detailed and consistently valid. I am beginning to explore the author's intentions.	I make evaluative comments about the text with an understanding of writer's methodology. I am beginning to discuss some more challenging ideas, using adverbs and verbs effectively. My comments are often inferential and rooted in the text.	I can explain the writer's ideas and attitudes and connect these to different aspects of context, including how different readers / audiences might react. My comments are detailed and well explained, but some minor misconceptions might still be evident.
FS3 Foundation Stage 3	I can identify some similarities and/or differences between texts, but they're mostly obvious. I may make some implicit comments. My explanations are clear and mostly valid. I show limited consideration of author's intentions.	I makes some evaluative comments about the text with a growing awareness of the writer's methodology, but still tend to comment on the simpler ideas. I may begin to use a dverb and verbs when discussing the author's purpose. My comments are more rooted in the text and explained well. I may begin to infer.	I am beginning to identify the writer's ideas and attitudes in the text and links these to context. My comments are more detailed, with a number of generalisations and/or misconceptions still evident.
FS2 Foundation Stage 2	I make some straightforward links about similarities and/or differences between texts, using simple connectives. My explanations are more developed, but areas of misunderstanding are evident. I may focus on one text more than the other.	I offer a straightforward opinion about the text. My comments are not always well explained, but are generally rooted in the text.	I show familiarity with the writer's ideas and text in context whether as a reader now or in the social, historical context. My comments are slightly more detailed, but misconceptions/generalisations are evident throughout.
FS1 Foundation Stage 1	I have some ability to comment on texts but no analytical linking or cohesion is evident. My explanation is minimal or unclear.	I make very simple, overtly personal comments about the text. My comments are unclear and not linked to the text.	I make some generalised and very simple comments about the writer's ideas and the text in context.





	Communication (AO5)	Organisation (AO6)	Sentences and punctuation (AO7)	Vocabulary (AO8)	Spelling (including homophones) (AO9)
BFS	Originality, independence, flair, sop	histication			
FS5 Foundation Stage 5	All my communication is effective and engaging, allowing those reading to fully engage and respond personally to the writing. I embed matching tones, style to audience, the purpose or the task and ensure these contribute to meaning.	I consciously craft paragraphs and, crucially, whole text. I use a dvanced discourse markers to subtly guide the reader effectively and complement the text's purpose.	I craft a wide range of sentence structures to heighten reading and emotional impact. I choose a wide range of punctuation for effect.	All my word choices combine to create a fluent and increasingly engaging tone. My phrasing is ambitious, and crafted effectively on a number of occasions. I craft devices and appropriately embed them throughout.	I very rarely make spelling errors, even of more complex words.
FS4 Foundation Stage 4	My communication is clear and effective, engaging the reader. I embed matching tone, style to audience, purpose and the task as needed.	I use paragraphs increasingly for effect. My whole text is well structured. I deploy a variety of more advancing discourse markers correctly and they create an appropriate effect.	I consciously use a range of sentence structures and forms. I make fewer errors with advanced punctuation.	All my word choices combine to create a successful, deliberate tone. My vocabulary is often ambitious and more successful in complementing the tone. I embed devices throughout to add to the overall effect.	My spelling errors do not impact meaning and I make few mistakes.
FS3 Foundation Stage 3	The whole piece communicates my ideas clearly and tense is secure. I include increasing moments of engagement for the reader. I can evidence that matching tone / style to audience / purpose / task was considered throughout the piece.	I use paragraphs accurately and can accurately structure a whole piece. I am starting to deploy a variety of discourse markers (e.g. however, on the other hand, despite).	I use simple, compound and complex sentences. I am starting to use commas in subordinate clauses – mostly accurately. I am beginning to use a wider range of punctuation.	All my word choices are relevant to tone. I have begun to experiment with ambitious vocabulary, sometimes inconsistently. I use clear basic devices. I make attempts at more complex ones.	I am attempting to spell more ambitious words correctly. I make some errors.
FS2 Foundation Stage 2	Most of my communication is clear with rare moments of engagement for the reader. My attempts at matching tone / style to audience / purpose / task are more obvious.	My text is in a logical order. I use paragraphs but not always accurately. I use appropriate time connectives (and, then, firstly, secondly)	I use simple and compound sentences. I use basic punctuation correctly. My sentences show comma splicing. I make some errors with more complex punctuation.	Most of my word choices are relevant to tone. I show some evidence of conscious, but simple, word selection. I occasionally use devices but they are basic and may not be clear.	I make some errors with more complex spelling patterns.
FS1 Foundation Stage 1	My writing can communicate ideas clearly but there can be confusion meaning the reader is not engaged. I attempt to matching tone and style to the audience, purpose and task.	My text is in a logical order. I show an inconsistent/ limited use of paragraphs.	All my sentences are simple, some are compound. I use basic punctuation correctly most of the time (capitals, full stops).	Some of my word choices are relevant to tone. My word choices are simple. I may attempt simple language devices.	I show evidence of phonetic spelling.





	Food Hygiene and Safety	Nutrition	Evaluation	Food Provenance	Food Science
BFS	As for Foundation Stage 5, but v	vith originality, independence and flair			
FS5 Foundation Stage 5	I know how to prevent food poisoning using the 4C's principles. I know the 14 common allergens and foods that they are found in.	I can identify and know the functions of all nutrients in the body. I can identify nutrients in my dishes and change the nutritional value of a dish. I can use nutritional information tables on packaging to inform my food choice. I can use the Eatwell guide to design dishes and diets for a person with special dietary requirements.		I can form an opinion on the impact of the food industry and consider ethical and moral issues surrounding food choice.	I know the causes of enzymic browning and how to prevent it. I can link different heat transfer methods to different cooking methods. I can explain the processes: gelatinisation, dextrinization, cara melisation, denaturation and aeration.
FS4 Foundation Stage 4	I know what the 4C's are and give examples of rules within each category. I can explain and know some examples of food poisoning, allergies and intolerances. I can provide practical solutions for kitchen hazards.	I can identify all basic nutrients and identify nutrients in dishes that I make. I can use traffic light nutrition labels on packaging to inform my food choice.	I know what sensory evaluation involves and why it is used in product development.	I know how to reduce food waste and a carbon footprint. I can recognise environmental logos on food packaging.	I can explain howheat is transferred. I know the terms: gelatinisation, dextrinization, caramelisation, denaturation and aeration.
FS3 Foundation Stage 3	I can explain the importance of the 4C's. I can define the terms: food poisoning, allergy, and intolerance.	I can identify all 5 nutrients. I can identify a source of carbohydrate, protein, fat. I can explain the green, amber and red colour coding on food labels.	I can suggest detailed adaptations to change a certain quality of a dish. I can give suggestions or further adaptions that could be made to a product. You can identify characteristics of food and describe the appearance, aroma, taste and texture of food.	I can define food miles and food waste. I know the effects of buying foods in season.	I know the name of all 3 heat transfer methods. I can link different heat transfer methods to each part of the cooker. I know that some ingredients have functions.
FS2 Foundation Stage 2	I know the 4C's. I can identify most kitchen hazards and explain why they are dangerous.	I know the 8 tips for healthy eating. I am aware of traffic light labelling on food packaging.	I can identify areas for improvement in my own practice. I can analyse my products and suggest ways to improve a dish. I can identify a few basic characteristics of food and use basic vocabulary to describe food	I know that some foods are seasonal. I can give examples of food which are grown, caught or reared.	I know that cooking changes the colour, flavour and texture of food. I can define conductor and insulator. I know what enzymic browning is.
FS1 Foundation Stage 1	I know some hygiene and safety rules. I can identify some kitchen hazards.	I know what a nutrient is. I know that protein, carbohydrate and fat are nutrients.	I can identify weaknesses in my products and suggests olutions. I can comment on the flavour, texture or appearance of food.	I am aware that foods are grown, caught or reared.	I know the parts of the cooker. I know some cooking methods.

# **Geography - Knowledge (Key Stage 3)**



BFS Beyond Foundation Stage	I can recall a wider variety of information about physical and human environments. I show some understanding of the location of these environments through case study detail with appropriate key terminology used. I recognise the inter-relationships between processes at different scales. I understand that these processes help develop geographical patterns and that these areas have specific characteristics. I understand how the relationship between people and environments inter-link, and trying to achieve sustainable development will affect planning and management of these areas.
FS5 Foundation Stage 5	I can recall basic information about physical and human environments, often limited to a few geographical scales with a basic knowledge of specific locations. I show some recognition of the physical and human processes involved with some appreciation of the resulting geographical patterns. I 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.
FS4 Foundation Stage 4	I can recall very basic information about the physical and human region studied and their specific environmental characteristics. I recognise that on the wider scale, places have different regions, and can begin to compare them. I understand simple geographical ideas about physical and human processes but do not always link them to a specific examples. I appreciate that processes help develop geographical patterns, which have their own characteristics for places and the environment. I understand the interrelations between physical and human environments and people, and the sustainable management of these.
FS3 Foundation Stage 3	I am beginning to understand how the links between physical and human geography create the particular characteristics of different places and begin to think more worldwide. I recognise that physical and human processes link with the physical and human environments, which creates diversity and changes. I am starting to understand that the use and management of environments can have consequences and can start to explain how these can result in change.
FS2 Foundation Stage 2	My depth of understanding of physical and human geography around their local area and the UK is increasing, and I am beginning to expand this to include the wider world. I can describe the physical and human characteristics of these environments on a local and global scale. I can describe how different physical and human environments have similarities and differences and how they arise from a variety of physical and human processes.
FS1 Foundation Stage 1	I show basic understanding of the physical and human geography of their local area, and am beginning to widen my understanding to examples from the UK and further a field. I recognise physical and human features, offering simple descriptions about their characteristics. I can recognise and describe simple geographical patterns. I understand that people can improve and damage physical and human environments.
PFS Pre- Foundation Stage	I have limited understanding of physical and human environments in local areas, the UK, and wider world but am able to describe general common features. I recognise some simple processes and how these contribute to the changes of places and environments. I can offer simple explanations for my observations and views about places, and physical and human environments. I use appropriate simplistic terminology to communicate my ideas.

### Geography - Skills (Key Stage 3)



BFS
Beyond Foundation Stage

I can 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. My data is collated and presented using simplistic techniques but I am beginning to produce more sophisticated techniques. I communicate my findings in more detail with plausible conclusions offered, as well as evaluation offered for several aspects of the enquiry. I 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. I have good graphical skills and can draw and interpret data on sophisticated graphs e.g. choropleth and flow line maps. I use my numerical and statistical skills to interpret data sets, highlighting trends and anomalous values.

### FS5

Foundation Stage 5 I can conduct a geographical enquiry, collect data from primary and secondary sources, collate the information and present their findings using a range of simplistic techniques. The outcomes of my enquiry are simplistic with a range of key terminology used. I can fully recognise the patterns made by physical and human features and use a range of cartographical skills to interpret and analyse the trends. I can use a wide range of OS map skills confidently. I can use statistical and numerical skills with increasing ease and include more sophisticated analysis techniques e.g. percentage increase or decrease when analysing data.

### FS4

Foundation Stage 4 I can conduct a geographical enquiry, collect data (primary and secondary) using a ppropriate techniques, collate the information and present findings using a number of graphical techniques e.g. bar graphs. The outcomes of my enquiry are simplistic with a limited range of key terminology. I have an improved knowledge of how numerical and statistical skills can be used to describe and analyse geographical data.

### FS3

Foundation Stage 3 I am beginning to develop my own geographical questions, briefly discuss my methods, draw some conclusions and offer some evaluation of my investigation. I can present my work both graphically and in writing, using more accurate geographical terminology. I have a working understanding of OS maps kills, and am beginning to use 6 figure grid references and describe geographical patterns on maps. I can draw a wider range of graphical techniques, including multiple line graphs. I can demonstrate my understanding of data using simplistic statistical and numerical skills with an increasing attempt to understand trends reflected in the data set.

### FS2

Foundation Stage 2 I am beginning to develop my own geographical questions, briefly discuss my methods, drawsome conclusions and offer some evaluation of my investigation. I can present my work both graphically and in writing, using more accurate geographical terminology. I can describe distributions of physical and human features and can sketch, label and start to annotate sketch maps and photographs in greater depth. I have an increasing working knowledge of OS mapskills, can use the 8-point compass and can use 4 figure grid referencing with increasing confidence. I show an understanding of the data through statistical skills e.g. mode and modal class.

### FS1

Foundation Stage 1 I am beginning to present my findings using basic key terminology. I recognise and use map symbols, the 8-point compass and am beginning to have a working understanding of 4 figure grid references and straight-line distances. I can construct a range of graphs, e.g. a bar and line graph, and use the mean and median values.

### PFS

Pre-Foundation Stage I communicate my ideas using appropriate simplistic terminology. I can recognise patterns on a map, use the 4-point compass and construct basic graphs, e.g. bar graphs. I can use geographical data to find the highest and lowest values, as well as complete basic calculations e.g. the range of the data.





	"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 & consequence
BFS  Beyond Foundation Stage	I can explain my own judgements about historical questions using sources beyond those expected.	I can construct my own interpretation, evaluate why it is useful and limited, comparing it to existing Interpretations in my context.	I can explain my own judgements about historical significance using knowledge beyond that expected.	I can explain my own judgements about change and continuity using knowledge beyond that expected.	I can explain and make my own judgements about causation using knowledge beyond that expected.
FS5 Foundation Stage 5	I can analyse why a source is useful to a historian. e.g. useful (valuable) or convincing.	I can analyse a number of interpretations and make a judgement about theme.g. which is most convincing based upon the content or provenance.	I can analyse how significance can vary according to different viewpoints e.g. then and now.	I can analyse (examine in detail) change and continuity. e.g. long term, short term and political, economic and social.	I can analyse a range of causes and consequences. e.g. long term, short term and political, economic and social
FS4 Foundation Stage 4	I can investigate and make a judgement about evidence e.g. considering nature, origin and purpose.	I can explain reasons for an interpretation, considering viewpoint, purpose, audience and their evidence.	I can investigate different reasons for significance e.g. short-term and long-term impact and make a judgement. (At least three of the 5rs.)	I can investigate events and make a judgement about change and continuity.	I can investigate links and make a judgement between two causes and consequences.
FS3 Foundation Stage 3	I can make inferences from sources to understand events.	I can make inferences from interpretations to understand its message.	I can explain why some people or events are significant. e.g. results, remembered.	I can explain why some changes or continuities are more important than others.	I can explain how one cause and/or consequences are more important than others.
FS2 Foundation Stage 2	I can describe what information in a source is useful (valuable).	I can describe different interpretations (points of view).	I can describe and give some reasons why a person or event might be significant.	I can describe why changes have happened in history.	I can describe two causes or consequences, similarities and differences.
FS1 Foundation Stage 1	I can describe what sources tell you.	I can describe an interpretation of the past.	I can describe an important person or event or history.	I can describe important changes in history.	I can describe one cause or a consequence.
PFS Pre-Foundation Stage	I can identify parts of a source.	I can identify what an interpretation is.	I can identify a significant event.	I can identify a change.	I can identify a cause and consequence.





	Communication	Spontaneity and fluency
BFS Beyond Foundation Stage	I can give clear information on a wide range of topics. I can develop responses in extended sequences of speech. I can give and often explain opinions in more detail. I can formulate a wide range of questions including more complex language without prompting.	I sometimes react naturally to questions on a range of topics, although I may also rely on support or prepared responses at times. My delivery is generally at a reasonable pace.
FS5 Foundation Stage 5	I mostly give clear information on wide range of topics. I can answer a range of questions with short responses and some extended responses. I can give opinions some of which are explained in more detail. I can formulate my own questions on a range of topics.	I can answer questions on a range of topics with support, or prepared responses for unfamiliar questions. I often adapt language to give more spontaneous responses. My delivery is usually at a natural speed, although there may be hesitancy.
FS4 Foundation Stage 4	I mostly give clear information about topics seen recently and sometimes on a wider range of topics. I can answer questions on a range of topics with short responses. I can give opinions and often develop them. I can formulate my own questions.	I can answer a range of questions with support, or prepared responses for unfamiliar questions. I sometime adapt my language to give more spontaneous responses. My delivery is oftenata natural speed, although may be slow at times.
FS3 Foundation Stage 3	I mostly give clear information about different topics seen recently in class. I can usually give short responses to simple questions on a range of topics. I can give opinions and sometimes develop them with basic language. I am able to ask a range of pre-learnt questions.	I can answer a range of familiar questions with support or prepared responses. My delivery can be at a natural speed with familiar language although may be quite slow at times.
FS2 Foundation Stage 2	I am usually clear when speaking about different topics seen recently in class. I can usually give short responses to simple questions without prompting. I can give basic opinions and occasionally develop them without prompting. I am able to ask short pre-learnt questions.	I can answersome familiar questions with support or prepared responses. I often he sitate and my delivery may be quite slow.
FS1 Foundation Stage 1	I am usually clear if speaking about a topic seen very recently in class. I can usually give short responses to simple questions when prompted. I use basic opinion phrases when prompted.	I can answer basic questions with considerable support or prepared responses. I may hesitate at length and my delivery is usually quite slow.
PFS Pre-Foundation Stage	I am sometimes clear when giving short answers. I can sometimes give very short responses to simple questions. I can give a basic opinion when prompted.	I can give short basic answers with support or prepared responses. I rely entirely on support to answer questions.





	Range and accuracy of language	Pronunciation and intonation
BFS Beyond Foundation Stage	I demonstrate good language with a variety of structures and vocabulary. My attempts at more complex structures are usually successful. I make references to past, present and future which are sometimes successful. I may make minor errors but they do not impede comprehension.	I have good pronunciation and intonation with only occasional lapses.
FS5 Foundation Stage 5	I generally demonstrate good language which involves mainly simple linguistic structures and vocabulary, with some repetition. I make successful attempts to use more complex linguistic structures and more varied vocabulary. I make some success in making reference to past and future, as well as present, events. I may make errors in more complex structures, but they do not generally impede comprehension.	I have good pronunciation but some inconsistency at times. I often use intonation. I am confident in applying my knowledge of phonics to new words.
FS4 Foundation Stage 4	I demonstrate reasonable language with simple structures and vocabulary. I make some attempts to use more complex structures, although not always successful. I have some success in making reference to a nother time frame. I may make some errors but they do not usually impede communication.	I generally have good pronunciation with some inconsistency in new language. I am able to use intonation. I am often able to apply knowledge of phonics to new words.
FS3 Foundation Stage 3	I am able to use simple structures to answer questions on a range of topics. I show some variety of language, not overly reliant on the same adjectives. I am beginning to use some complex structures. I may make serious errors in less familiar language.	My pronunciation is clear, although there is some inconsistency. I am able to use a little intonation. I am sometimes able to apply limited knowledge of phonics to new words.
FS2 Foundation Stage 2	I am able to use basic structures to answer questions on different topics. I have a limited range of vocabulary, and sometimes repeat the same adjectives. I make few errors in familiar language.	My pronunciation is clear, although some words may be anglicised.
FS1 Foundation Stage 1	I am able to use some basic structures and phrases to answer familiar questions. I have a very limited range of vocabulary, often repeating the same adjectives and phrases. I make basic errors which can impede communication.	My pronunciation is usually clear, although there may be a delay.
PFS Pre-Foundation Stage	I am able to use very short basic structures to answer some questions. I repeat the same adjectives and phrases.	My pronunciation can be understood in single words.





	Sentences	Accuracy and communication	Variety of language
BFS Beyond Foundation Stage	I can write longer coherent texts on a range of topics. I can transfer knowledge from prior topics.	I produce writing which is accurate, with rare lapses when using more complex structures.	I can manipulate language to narrate, inform, interest or convince a reader of their ideas and points of view. I occasionally use a range of less common vocabulary and complex linguistic structures as indicated in the specification
FS5 Foundation Stage 5	I write in full sentences and short paragraphs. I can write longer texts on a range of familiar topics.	I produce writing which is accurate when using a wider variety of structures. I may make some major errors in more complex structures. I can communicate a lot of information clearly.	I use a variety of ideas, opinions and adjectives, some complex structures. I use common, familiar language to narrate events, present facts and express ideas and opinions with minimal ambiguity. I can use a range of common vocabulary and linguistic structures with the occasional more complex linguistic structures as indicated in the specification. I make reference to threetime frames, which are largely successful.
FS4 Foundation Stage 4	I can write in full sentences and short paragraphs on a range of familiar topics.	I produce writing which is accurate when using a wider variety of structures. I make minor errors when attempting a wider variety of structures. I make major errors in more complex structures. I can communicate a lot of information.	I use common, familiar language to narrate events, present facts and express ideas and opinions with some ambiguity. I use a range of common vocabulary. I can use a range of complex language — including more than one-time frame.
FS3 Foundation Stage 3	I write in full sentences, which are sometimes extended, on a range of familiar topics.	I can produce writing which is accurate when using familiar language. I make some major and minor errors when attempting a wider variety of structures. I can communicate quite a lot of messages.	I can use a range of common, familiar language with more frequent ambiguity. I can use some complex language.
FS2 Foundation Stage 2	I can write short sentences on a range of familiar topics.	I can produce writing which is reasonably accurate when using familiar language. I can communicate some messages.	I can use a limited range of common, familiar language to present simple facts, ideas, and points of view. I can use a limited range of common vocabulary. I make attempts at longer sentences.
FS1 Foundation Stage 1	I can write very short sentences on a limited range of topics.	My writing is legible but has lots of errors. I can communicate a few messages.	My vocabulary is repetitive, simple and limited.
PFS Pre- Foundation Stage	I write using single words, often missing words in whole sentences.	I can communicate some words.	

### Maths - Using and Applying (Key Stage 3)



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

### FS5

Foundation Stage 5

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

### FS4

Foundation Stage 4

I can carry out substantial tasks and solve quite complex problems by independently and systematically breaking them down into smaller, more manageable tasks. I can interpret, discuss and synthesise information presented in a variety of mathematical forms, relating findings to the original context. My written and spoken language explains and informs my use of diagrams. I am beginning to give mathematical justifications, making connections between the current situation and situations I have encountered before.

### FS3

Foundation Stage 3

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

### FS2

Foundation Stage 2

I can develop my 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, I check my results are reasonable by considering the context. I look for patterns and relationships, presenting information and results in a clear and organised way, using ICT appropriately. I can search for a solution by trying out ideas of my own.

### FS1

Foundation Stage 1

I try different approaches and find ways of overcoming difficulties that arise when I am solving problems. I am beginning to organise my work and check results. I can discuss my mathematical work and am beginning to explain my thinking. I use and interpret mathematical symbols and diagrams. Students show that I understand a general statement by finding particular examples that match it.

### PFS

Pre-Foundation Stage

I use mathematics as an integral part of classroom activities. I can represent my work with objects or pictures and discuss it. I can recognise and use a simple pattern or relationship. I can select the mathematics I use in some classroom activities. I can discuss my work using mathematical language and am beginning to represent it using symbols and simple diagrams. I can explain why an answer is correct.



# Maths – Number, Ratio, Proportion, Rates of Change and Algebra (Key Stage 3)

#### **BFS**

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

### FS5

Foundation Stage 5

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

#### FS4

Foundation Stage 4

I can order and approximate decimals when solving numerical problems and equations, using trial and improvement methods. I understand and can use the equivalences between fractions, decimals and percentages, and calculate using ratios in appropriate situations. I can add and subtract fractions by writing them with a common denominator. I can formulate and solve linear equations with whole-number coefficients. I can represent mappings expressed algebraically, and use Cartesian coordinates for graphical representation interpreting general features. When making estimates, I am able to round to one significant figure and multiply and divide mentally. I can solve numerical problems involving multiplication and division with numbers of any size, using a calculator efficiently and appropriately.

### FS3

Foundation Stage 3

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

### FS2

Foundation Stage 2

When solving number problems, I 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. I can select efficient strategies for addition, subtraction, multiplication and division. I amable to recognise approximate proportions of a whole and use simple formulae expressed in words. I can use my understanding of place value to multiply and divide whole numbers and decimals. I can order, add and subtract negative numbers in context. I can use and interpret coordinates in all four quadrants.

### FS1

Foundation Stage 1

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

#### **PFS**

Pre-Foundation Stage

I can count, order, combine, increase and decrease quantities when solving problems in practical contexts. I can read and write the numbers involved. I can count sets of objects reliably, and use mental recall of a ddition and subtraction facts to 10. I am beginning to understand the place value of each digit in a number and use this to order numbers up to 100. I can choose the appropriate operation when solving addition and subtraction problems. I am able to use the knowledge that subtraction is the inverse of addition. I can use mental calculation strategies to solve number problems involving money and measures. I rec ognise sequences of numbers, including odd and even numbers.

# Maths - Space and Shape (Key Stage 3)



<b>BFS</b> Beyond Foundation Stage	I can sketch the graphs of the sine, cosine and tangent functions for any angle, and generate and interpret graphs based on these functions. I can use the sine, cosine and tangent of angles of any size, and Pythagoras' theorem when solving problems in two and three dimensions. I am able to construct formal geometric proofs. I can calculate the surface area of cylinders and volumes of cones and spheres.
FS5 FoundationStage 5	I understand and am able to apply Pythagoras' theorem when solving problems in two dimensions. I can calculate lengths, areas and volumes in plane shapes and right prisms. I can enlarge shapes by a fractional scale factor, and amable to appreciate the similarity of the resulting shapes. I can determine the locus of an object moving according to a rule. I understand am able to use congruence and mathematical similarity. I can use the sine, cosine and t angent ratios in right-angled triangles when solving problems in two dimensions. I can sketch the graphs of the sine, cosine and tangent functions for any angle. I can calculate the lengths of circular arcs and areas of sectors. I appreciate the continuous nature of scales that are used to make measurements.
FS4 FoundationStage 4	I can solve problems using angles and symmetry, properties of polygons and angle properties of intersecting and parallel lines, and explain these properties. I can devise instructions for a computer to generate and transform shapes and paths. I understand and can use appropriate formulae for finding circumferences and areas of circles when solving problems. I appreciate the imprecision of measurement and recognise that a measurement given to the near est whole number may be inaccurate by up to one half in either direction. I understand and can use compound measures, such as speed.
FS3 Foundation Stage 3	When constructing models and drawing or using shapes, I can measure and draw angles to the nearest degree and use language as sociated with angles. I know the angle sum of a triangle and that of angles at a point. I can convert one metric unit to a nother. I understand and can use the formula for the area of a rectangle. I recognise and am able to use common 2-D representations of 3-D objects. I know and can use the properties of quadrilaterals. I can devise instructions for a computer to generate and transform shapes and paths. I understand and can use appropriate formulae for areas of plane rectilinear figures and volumes of cuboids when solving problems.
FS2 Foundation Stage 2	I can use and make geometric 2-D and 3-D patterns, scale drawings and models in practical contexts. I can find areas of simple shapes. I can identify all the symmetries of 2-D shapes. I can make sensible estimates of a range of measures in relation to everyday situations.
FS1 Foundation Stage 1	I can classify 3-D and 2-D shapes in various ways using mathematical properties such as reflective symmetry for 2-D shapes. I can 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. I can reflect simple shapes in a mirror line. I am able to choose and use appropriate units and tools, interpreting, with appropriate accuracy, numbers on a range of measuring instruments.
PFS Pre-Foundation Stage	When working with 2-D and 3-D shapes, I am able to use mathematical language to describe properties and positions. I can measure and order objects using direct comparison, and order events. I can use mathematical names for common 3-D and 2-D shapes and describe their properties, including numbers of faces, edges and vertices. I can distinguish between straight and turning movements, recognise angle as a measurement of turn, and right angles in turns. I am beginning to use every day non-standard and standard units to measure length and mass.

# Maths – Statistics (Key Stage 3)



BFS  Beyond Foundation  Stage	I understand how different methods of sampling and different sample sizes may affect the reliability of conclusions drawn. I can select and justify a sample and method to investigate a population. I recognise when and how to work with probabilities associated with independent, mutually exclusive events.
FS5 Foundation Stage 5	I can specify hypotheses and test them by designing and using appropriate methods that take account of variability or bias. I can determine the modal class and estimate the mean, median and range of sets of grouped data, selecting the statistic most appropriate to my line of enquiry. I understand relative frequency as an estimate of probability and can use this to compare outcomes of experiments. I can interpret and construct cumulative frequency tables and diagrams. I can estimate the median and interquartile range and use these to compare distributions and make inferences. I understand how to calculate the probability of a compound event and can use this in solving problems. I can interpret and construct histograms
FS4 Foundation Stage 4	I can draw conclusions from scatter diagrams, and have a basic understanding of correlation. I can 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, I can identify all the outcomes. When solving problems, I can use their knowledge that the total probability of all the mutually exclusive outcomes of an experiment is 1.
FS3 Foundation Stage 3	I can interpret graphs and diagrams, including pie charts, and draw conclusions. I can collect and record continuous data, choosing appropriate equal class intervals over a sensible range to create frequency tables. I can construct and interpret frequency diagrams. I can construct pie charts. I can find and justify probabilities and approximations to these by selecting and using methods based on equally likely outcomes and experimental evidence, as appropriate. I understand that different outcomes may result from repeating an experiment.
FS2 Foundation Stage 2	Using technology where appropriate, I can group data in equal class intervals if necessary, represent collected data in frequency diagrams and interpret such diagrams. I understand and can use the mean of discrete data. I can compare two simple distributions using the range and one of the mode, median or mean. I understand and can use the probability scale from 0 to 1.
FS1 Foundation Stage 1	I can extract and interpret information presented in simple tables and lists. I can construct charts and diagrams to communicate information I have gathered for a purpose, and I can interpret information presented to me in this form. I can generate and answer questions that require the collection of discrete data which I am then able to record using a frequency table. I understand and can use an average and range to describe sets of data. I can construct and interpret simple line graphs.
PFS Pre-Foundation Stage	I can sort objects and classify them, demonstrating the criterion I have used. I can collect data to answer questions. I can sort objects and classify them using more than one criterion. When I have gathered information to answer a question or explore a situation, I amable to record results in simple lists, tables, diagrams and block graphs, in order to communicate my findings.





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



# PE (Key Stage 3)



	Knowledge	Demonstrate skills	Decision Making & Application	Evaluation
FS5 Foundation Stage 5	I am able to link a range of knowledge and understanding from key areas such as rules, skills, fitness, etc.	I perform skills consistently when under pressure, starting to influence a game.	I create opportunities to dominate in performances, effectively winning games.	I can explain strengths and areas to develop, looking for patterns in performance. I can give recommendations to improve performance through skills practices.
FS4 Foundation Stage 4	I have a broad range of knowledge and understanding from key areas such as rules, skills, fitness, etc.	I can demonstrate skills with various levels of consistency. I choose the appropriate skill in most situations. I am starting to be effective in a game.	I am starting to select appropriate tactics to bring about change in performance. I am able to respond to my opponents' actions successfully.	I am able to explain the impact that strengths and areas to develop have on a game and suggest improvements.
FS3 Foundation Stage 3	I understands key terms and knowledge points and am able summarise learning.	I am able to demonstrate skills in competitive situations. I may only be able to demonstrate or repeat a basic skill.	I attempt to adapt my performance to an opponent with some success. I can apply tactical changes in response to my opponents' actions (with some errors).	I am able to identify my own and others' strengths and areas to develop in a game or conditioned game.
FS2 Foundation Stage 2	I can identify basic knowledge points: key terms, rules, techniques etc.	I can perform basic skills in isolation; these sometimes may break down when under pressure.	I make misjudgements. I can apply tactical changes but not successfully. I am not able to capitalise on my opponents' weaknesses.	I am able to identify my own and others strengths and areas to develop during isolated practice.
FS1 Foundation Stage 1	I can recall basic information such as teaching points, basic rules, etc.	My basic skills are lacking in technical accuracy and timing. I may need extra support.	I struggle to respond to playing / performing conditions. I fail to create openings to take on opportunities.	I can identify some personal strengths and areas to develop in my own performance.

### Science - Biology (Key Stage 3)



#### **BFS**

Beyond Foundation Stage I demonstrate both breadth and depth of knowledge and understanding of organisms, their behaviour and the environment. I apply this effectively in my descriptions and explanations, for example; explaining the advantage of different forms of chlorophyll for photosynthesis. I can explain why different types of cells contain different organelles. For example, the need for muscle cells to contain many mitochondria. I interpret, evaluate and synthesise data, from a range of sources in a range of contexts, and apply my understanding to a wide range of biological systems. I 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. I 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.

### FS5

Foundation Stage 5 I demonstrate extensive knowledge and understanding related to organisms, their behaviour and the environment. I use and apply this effectively in my descriptions and explanations, identifying links between topics, for example relating cellular structure of organs to their associated life processes and how organ systems work together for the functioning of the human body for example the circulatory and respiratory systems. I 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. I show I 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. I can explain how scientific ideas have changed, based on experimental evidence, for example Van Helmont. I can 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.

#### FS4

Foundation Stage 4 I can describe a wide range of processes and phenomena related to organisms, their behaviour and the environment, using a bstract 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. I can make links between different areas of science in their explanations. I can apply and use more abstract knowledge and understanding, in a range of contexts, such as inherited and environmental variation. I can explain the use of enzymes in digestion and give an example of an enzyme in the human body. I can describe how carbon can move between living organisms and the atmosphere. I can explain how evidence supports some accepted scientific ideas, such as the structure and function of cells. I can 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.

#### FS3

Foundation Stage 3 I can 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. I can use the word equation for photosynthesis and respiration. I take account of a number of factors or use ab stract ideas or models in their explanations of processes and phenomena, such as environmental factors affecting the distribution of organisms in habitats. I can describe how a model lung can explain the mechanism of breathing and its importance for providing a reactant needed for respiration. I can apply and use knowledge and understanding in unfamiliar contexts, such as a food web in a habitat. I can identify the different organs within an organism and use them to explain the different organ systems and their importance. I can 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. I can make a comparison between creationism and evolution and the evidence for each described. I can explain the importance of some applications and implications of science, such as the use of selective b reeding,

### FS2

Foundation Stage 2 I can describe the 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 organsystems which could include; the circulatory, respiratory and digestive system for animals and the main organs of a flowering plant related to reproduction. I can explain processes and phenomena, in more than one step or using a model. I can 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. I can describe applications and implications of science, such as solving some of the health problems that arise when organ damage occurs.

### FS1

Foundation Stage 1 I can 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 and plants requiring sunlight as a producer in order to be the source of chemical energy for other organisms for respiration. I can recognise that evidence can support or refute scientific ideas, such as in the identification and grouping of living things.

#### PFS

I can use my knowledge a bout 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. I recognise that living things grow and reproduce through the study of plant, animal reproduction. I can name the main organs involved in plant and animal reproduction. I can sort living things into groups, using simple features. I can describe the basis for my groupings [for example, number of legs, shape of leaf], identifying objects as living or non-living using MRSGREN. I recognise that different living things are found in different places [for example, ponds, woods]. I can use my knowledge and understanding of basic life processes [for example, growth, reproduction] when I describe differences between living and non-living things.

### **Science - Chemistry (Key Stage 3)**



### **BFS**

I demonstrate both breadth and depth of knowledge and understanding of various different chemical processes. I can interpret, evaluate and synthesise data from a range of sources in a range of contexts, and apply my understanding to a wide range of chemical systems, such as explaining chemical behaviours that do not fit expected patterns. I can demonstrate an understanding of how scientific knowledge and understanding changes, building on processes such as questioning investigating and evidence-gathering. I can describe and explain the importance of a wide range of applications and implications of science in familiar and unfamiliar contexts.

### FS5

Stage 5

I can demonstrate extensive knowledge and understanding related to materials, their properties and the Earth. I use and a pplythis effectively in my descriptions and explanations, identifying links between topics, for example: I link understanding of atoms and bonds with energy and temperature changes to describe reactions as exothermic or endothermic, I use ideas about particles and energy to explain why increasing temperature speeds up the rate of a chemical reaction. I can describe and explain the process of continental drift. I can represent common compounds by chemical formulae and use these formulae to form balanced symbol equations for reactions. Ican show I understand the relationship between evidence and scientific ideas, and why scientific ideas may need to be changed. For example; Newlands periodic tablewas changed due to Mendeleev's version including gaps for undiscovered elements.

# FS4 Foundation Stage 4

I can describe a wide range of processes and phenomena related to materials, their properties and the Earth, using abstract deas and appropriate terminology and sequencing a number of points. I can make links between different areas of science in my 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 a bout changing states and the particle model to explain how distillation works. I can 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, and using balanced symbol equations to represent chemical reactions. I can explain how evidence supports some accepted scientific ideas, such as reactions of metals with acid or water support the reactivity series of metals. I can 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.

### FS3

Stage 3

I can describe processes and phenomena related to materials, their properties and the Earth, using a bstract 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 a pattern in reactivity by drawing on the outcomes of displacement reactions, describing elements as solid, liquid or gases based on melting and boiling points, 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, and using chemical formula to deduce the elements present and the number of atoms. I can explain the importance of some applications and implications of science.

### FS2

Foundation Stage 2 I can 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 leactions, describing elements, compounds and mixtures using particle diagrams, and identifying an acid or alkali using indicators. I can 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, constructing a word equation to show what happens in a chemical reaction, and explaining melting, evaporating etc. using the particle model. I can 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 and the fact that patterns helped Mendeleev develop the periodic table. I can describe applications and implications of science.

### FS1

Foundation Stage 1 I can recall keywords when supplied with a definition. I can describe some processes and phenomena related to materials, their properties and the Earth, drawing on scientific knowledge and understanding. For example; describing changing state by using scientific terminology such as freezing, meltingetc., describing observations of a chemical reaction, and describing properties e.g. malleable, brittle, high melting point etc. I recognise that evidence can support or refute scientific ideas, such as; the classification of reactions as reversible and irreversible. I can use chemical tests (e.g. limewater) to identify products made in a chemical reaction. I understand that an increase in temperature supports the idea that chemical reactions release energy.

### PFS

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

### Science - Physics (Key Stage 3)



### **BFS**

Beyond Foundation Stage I can demonstrate both breadth and depth of knowledge and understanding of energy, forces and space. I apply this effectively in my 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. I can 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. I can 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. I can describe and explain the importance of a wide range of applications of science in familiar and unfamiliar contexts, such as alternative methods of electricity generation.

### FS5

Foundation Stage 5 I can demonstrate extensive knowledge and understanding related to energy, forces and space, for example the passage of soundwaves through a medium or the flow of current in a parallel circuit. I use and apply this effectively in their descriptions and explanations, identifying links between topics I can interpret, evaluate and synthesise data from a range of sources and in a range of contexts. I can show I understand the relationship between evidence and scientific ideas, and why scientific ideas may need to be changed. I can 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. I can carry out multi-step calculations e.g. F=MA

### FS4

Foundation Stage 4 I can 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. I can apply and use more abstract knowledge and understanding in a range of contexts, such as the appearance of objects in different colours of light. I can 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. I can explain, using abstract ideas where appropriate, the importance of some applications and implications of science.

### FS3

Foundation Stage 3 I can describe the processes and phenomena related to energy, forces and space, using abstract ideas (I give the idea not given in question or shown on graph) and appropriate terminology, for example: electric current as a way of transferring energy. I take account of a number of factors in my explanations of processes and phenomena, for example increased strength electromagnet because of number or turns or current or iron core. I can also use abstract ideas or models, for example sustainable energy sources. I can apply and use knowledge and understanding in unfamiliar contexts. E.g. conduction in penguins feet. I can describe some evidence for some accepted scientific ideas, e.g. conservation of energy such as the transfer of energy by light, sound or electricity. I can explain the importance of some applications and implications of science, such as the responsible use of unsustainable sources of energy.

### FS2

Foundation Stage 2 I can 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. I can explain processes and phenomena, using a model, such as the length of a day or a year. I can apply and use knowledge and understanding in familiar contexts e.g. moments on a see saw. I 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. I can describe applications and implications of science, such as the ways sound can be produced and controlled, for example in musical instruments.

### FS1

Foundation Stage 1 I can 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. I recognise some applications and implications of science, such as: the use of electrical components to make electrical devices, how magnetic fields and moving wires generate electricity in power stations, linking density to materials needed to make boats, and linking sound topic to how ear defenders work.

### **PFS**

Pre-Foundation Stage I can communicate observations of changes in light, sound or movement that result from actions for example: switching on a simple electrical circuit, and pushing and pulling objects. I recognise that sound and light come from a variety of sources and name some of these for example TV, radio, torches, the sun and people. I know about a range of physical phenomena and recognise and describe similarities and differences associated with them for example sound, light andwater waves. I can compare the way in which devices, for example bulbs, motors and resistors, work in different electrical circuits. I can compare the brightness or colour of lights, the loudness or pitch of sounds from looking at a waveform and the current or voltage from looking at ammeters or voltmeters. I can compare the movement of different objects in terms of speed or direction. I use my 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. I am beginning to make simple generalisations about physical phenomena for example, explaining that sounds they hear become fainter the further they are from the source.