

Spinfield School Knowledge, Skills and Vocabulary progression map

Subject: Art and Design

Year: 6

Learning	Vocabulary
Select ideas based on first hand observations, experience or imagination.	Perspective, structure, composition, proportion, prototype, pastiche, Matisse, Donatello, Julie Taymor, e construct, manipulate, scale, focal point, statement, expression
Refine his/her use of techniques.	
Adapt his/her work following feedback or discussion based on their preliminary ideas.	
Describe the work of various artists, architects and designers, using appropriate vocabulary and referring to historical and cultural context.	
Explain and justify preferences towards different styles and artists.	
Techniques	
Begin to develop awareness of composition, scale and proportion in their work.	Paint, drawing, collage, perspectives, construction, modelling, sewing, blanket, stitch, chain stitch, expressionism
Use a simple perspective in their work using a single focus point and horizon.	
Use colours, techniques and effects in an appropriate way to represent things seen-brushstrokes following the shape of the grass, watercolour bleeds to show clouds.	
Produce intricate patterns in malleable media.	
Use different techniques, colours and textures when designing and making pieces of work and explain choices.	
Create intricate printing patterns by simplifying and modifying sketchbook designs.	
Follow a design brief to achieve an effect for a particular function.	

E safety	Vocabulary
Networks	Network, cloud, server, internet, world wide web, web browser, email, shared drives, wireless router, LAN, WAN, network cables
Understand how computers are able to communicate and share information.	
Use and combine services on the internet to share information	
Network Searching	Search engines, Security software. ... Install most secure internet browser, operating system, protect your password, log out of secure websites after transaction, suspicious websites
Recognise trustworthy sources of information on the internet.	
Use a broad range of resources online to find exactly what I'm looking for	
Using Computers	Embed, program, hyperlinks, animation, sound,
Use more than one piece of software to complete a task.	
Design a program for a given audience	
Use software to help me analyse and present data and information.	
Coding	Action, alert, algorithm, code design, command, control, debug, event function, if/else, input, output, repeat, object, output, repeat, simulation, tabs, selection
Combine software and hardware to solve real life problems.	
Break code up into related instructions, making debugging easier and quicker.	
Store and retrieve variables in a program	
Use loops, variables and IF statements to alter the way my programs run.	
Use logical thinking to identify and solve potential bugs during coding.	

Please note:

- additional computing vocabulary specific to each purple mash unit is available on purple mash
- names of software, apps and programs may change so should be added when used

Spinfield School Knowledge, Skills and Vocabulary progression map

Subject: D&T

Year: 6

Cooking and Nutrition	Vocabulary
Confidently plan a series of healthy meals based on the principles of a healthy and varied diet.	Fat, sugar, carbohydrate, protein, vitamins, nutrients, healthy, varied, intolerance, source, savoury, utensils, hygiene, stir, mix, rub, whisk, beat, roll out, sprinkle, design specification, research, evaluate, recipe
Use information on food labels to inform choice.	
Research, plan and prepare and cook a savoury dish, applying my knowledge of ingredients and my technical skills.	
Processes	
Research I have done into famous designers and inventors to inform my designs	Seam allowance, reinforce, chain stitch, running stitch, back stitch, template, pattern, pieces, fasteners, thread, pinking shears, design criteria, functionality, purpose, authentic, reuse, recycle, purpose, evaluate, mock up, prototype, pulley, drive, chassis ,wheels, axle, circuit, switches, annotated, drawing, mechanical system, functionality, electrical components
Generate, develop, model and communicate my ideas through discussion, annotated sketches, cross -sectional and exploded diagrams, prototypes, pattern pieces .	
Apply my knowledge of materials and techniques to refine and rework my product to improve its functional properties and aesthetic qualities.	
Use my technical knowledge and accurate skills to problem solve during the making process.	
Use my knowledge of famous designs to further explain the effectiveness of existing products and products I have made.	
Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately.	

Spinfield School Knowledge, Skills and Vocabulary progression map

Subject: French

Year: 6

Listening	Vocabulary
Understand longer & more challenging texts on a range of topic areas, recognising some details & opinions heard.	Clothing: Items of clothing, the verb 'porter', adjectives of colour and size, masculine and feminine endings of words, 'er verbs, give reasons 'parce que' I live: place/buildings, prepositional phrases, greetings A French-speaking country: Telling the time, modes of transport, exchanging pleasantries in letters, finding a location, describe images, following instructions for recipes.
Apply knowledge of phonemes & phonemes to attempt the reading of unfamiliar words.	
Speaking	
Engage in longer conversations, asking for clarification where necessary.	Clothing: Items of clothing, the verb 'porter', adjectives of colour and size, masculine and feminine endings of words, 'er verbs, give reasons 'parce que' I live: place/buildings, prepositional phrases, greetings A French-speaking country: Telling the time, modes of transport, exchanging pleasantries in letters, finding a location, describe images, following instructions for recipes.
Create his/her own sentences using knowledge of basic sentence structure.	
Use pronunciation & intonation effectively to accurately express meaning & engage an audience.	
Create a short piece for presentation for an audience.	
Reading	
Read aloud & understand a short text containing unfamiliar words, using accurate pronunciation.	Clothing: Items of clothing, the verb 'porter', adjectives of colour and size, masculine and feminine endings of words, 'er verbs, give reasons 'parce que' I live: place/buildings, prepositional phrases, greetings A French-speaking country: Telling the time, modes of transport, exchanging pleasantries in letters, finding a location, describe images, following instructions for recipes.
Attempt to read a range of texts independently, using different strategies to make meaning.	
Use vocabulary learnt from reading in different contexts & use dictionaries to find a wide range of words.	
Writing	
Write a range of phrases & sentences from memory & adapt them to write his/her own sentences on a similar topic.	Clothing: Items of clothing, the verb 'porter', adjectives of colour and size, masculine and feminine endings of words, 'er verbs, give reasons 'parce que' I live: place/buildings, prepositional phrases, greetings A French-speaking country: Telling the time, modes of transport, exchanging pleasantries in letters, finding a location, describe images, following instructions for recipes.
Select appropriate adjectives to describe a range of things, people & places & appropriate verbs to describe actions.	
Begin to use some adverbs.	

Geographical Skills and Fieldwork	Vocabulary
I can use maps, atlases, globes and digital/ computer mapping to locate countries and describe features	Fieldwork, locate and describe using maps (including OS maps), atlases, globes, digital mapping, measure, record and communicate using a range of methods including maps, plans, graphs, writing at length. Counties, cities, geographical regions, characteristics, topographical features, land use & changes over time
I can use the 8 points of the compass to build my knowledge of the UK and the wider world	
I can use 4-figure and 6-figure grid references to build my knowledge of the UK and the wider world	
I can use symbols and keys (including those of OS maps) to build my knowledge of the UK and the wider world	
I can use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods- sketch maps/ plans and graphs/ digital technologies	
I can understand and use a widening range of geographical terms such as urban/ rural/ land use/ sustainability/ tributary/ trade links/ natural resources	
I can use maps, charts etc to support decision making about the location of places eg new bypass	
Locational Knowledge	
I can identify and describe the significance of the Prime/ Greenwich Meridian and time zones, including day and night	Latitude, longitude, Equator, North & Southern hemispheres, Tropics Cancer & Capricorn, Arctic and Antarctic Circle, Prime / Greenwich Meridian & time zones. 8 Compass points, 4 & 6 figure grid references
I can locate the worlds' countries using maps to focus on Europe and N and S America, concentrating on their environmental regions, key physical and human characteristics, countries and major cities	
I can name and locate counties and cities of the UK, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts, rivers) and land- use patterns; and understand how some of these aspects have changed over time	
I can identify the position and significance of latitude and longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/ Greenwich Meridian and time zones (including day and night and seasons)	
Human and Physical Geography	

<p>I can describe and understand key aspects of physical geography including-climate zones/ biomes and vegetation belts/ rivers/ mountains/ volcanoes and earthquakes/ the water cycle/ deserts</p>	<p>Physical Features: Climate zones, biomes and vegetation belts, mountains, rivers, volcanoes and earthquakes. Human features: Types of settlement, and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.</p>
<p>I can describe and understand key aspects of human geography including-types of settlement and land-use/ economic activity including trade links/ the distribution of natural resources, including energy, food, minerals and water</p>	
<p>Place Knowledge</p>	
<p>I can understand geographical similarities and differences through the study of physical and human geography of a region of the United Kingdom, a region in a European country, and a region within North or South America</p>	<p>Counties, cities, geographical regions, characteristics, topographical features, land use & changes over time</p>

Knowledge, skills and vocabulary progression map

Subject: History

Year: 6

Chronological understanding	Vocabulary
I can place some key eras/events in date order...on timelines from Stone Age to present day ...understanding varied duration and extent of impact	Anachronism, B.C.E (Before the Common Era), C.E (The Common Era), B.C (Before Christ), A.D (Anno Domini), 20th Century, evidence, significant, impact, artefacts
I can talk about some aspects of local, British and/or world history	
I can use some historical vocabulary correctly e.g. Chronology/chronological... anachronism... evidence, clues, artefacts, opinion, impact, legacy... language of explanation (because, so)important/significant...using evidence (this suggests, may be, perhaps, could be)	
Historical enquiry	Sources (primary and secondary), reliable, archaeology, propaganda, motive, biased, legacy, historian
I know that there are a variety of sources to use to find out about the past ... diagram of what we can use to find answers...from the time...letters, diaries, drawings, newspapers...from now...websites, books, tv, film, video clips, experts, museums, beginning to work out which the best sources of information are for what answers	
I can think of and ask some sensible questions about what happened in the past, starting with the big 5w for initial research	
I can investigate/find answers to my questions...from a varied range of sources	Sources (primary and secondary), reliable, archaeology, propaganda, motive, biased, legacy, historian
Historical interpretations	
I can use a variety of sources to research the past independently...and refer to it in written answers and explain why opinions might differ	
I can make inferences from a variety of sources ...this suggests/I can infer...this is because it says/shows ...	
I can analyse sources (explain what they do and do NOT suggest and explain if they are reliable...writing developed answers on this)	Conclusions, substantial evidence, reliable, biased, impression, inference, context of time Ideologies (Political, Religious and cultural) Cultural context, birthright, advocate,dDemocracy interpretation, commemorate
Organisation and communication	
I can explain e.g. why Mayan civilisation ended...	
I can examine evidence to decide how reliable it might be	
I can weigh up both sides of an issue...Were they ...? Did they...?	
I can explain a range of different viewpoints...often based upon different experiences or gaps in evidence	
I can make substantiated conclusions (ones that I can back up)	
I can put conclusions into the context of the time (explain how people might think differently in the past)	
Understanding events, people and changes	this source suggests, propaganda, biased, evidence, impact, primary and secondary sources, motive, effects, significance, event of change

I can describe in detail events/eras and experiences in the past (<i>by writing in 'essay' style using introductions, paragraphs and conclusionsAlso be exploring different experiences of these eras...e.g. changing attitudes to race and gender</i>)	
WW1/Local history	
The Mayans	
I can compare different eras ... <i>considering the extent of change/continuity</i>	
I can compare different eras and explain some of what is similar and different about them... <i>x did this because....whereas y did....because...</i>	

Number and Place Value	Vocabulary
I can read, write, order and compare numbers to at least 10,000,000 (ten million) and say the value of each digit	Ten million millions thousands hundreds tens ones zero place value greater than less than order round rounded negative number partition digit interval sequence
I can round any number to a required degree of accuracy	
I can use negative numbers in context when looking at temperature or money; counting in jumps forwards and backwards through 0	
I can solve number and practical problems that involve ordering and comparing numbers to 10 000 000, rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero	
Addition and Subtraction	Add, total, make, plus, some, more, altogether, difference, subtract, less, minus, takeaway. Column addition, column subtraction, estimate, inverse.
I can mentally calculate using a mix of the four operations	
I can solve problems with more than one step and operation and explain why I used them	
I can solve addition and subtraction word and practical problems	
I can use estimation to check answers to calculations and determine an appropriate degree of accuracy.	Multiply, groups of, lots of, times, divide, share, remainder, factor, multiple and product, solve problems, number facts, place value
Multiplication and Division	
I can multiply numbers of up to 4 digits by a two-digit number using a formal written method	
I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate	
I can divide numbers of up to 4 digits by a two-digit number using a formal written method of short division, showing remainders, fractions or rounding as appropriate	
I can mentally calculate using a mix of the four operations and increasingly large numbers	
I can identify common factors, multiples and prime numbers	
I can use the order of importance of the four operations when answering questions	
I can solve addition and subtraction multi-step problems, deciding which operations and methods to use and explain why they were suitable	
I can solve problems involving addition, subtraction, multiplication and division	
I can use estimating to check answers and problem solving	

Fractions	
I can use common factors and multiples to simplify fractions and express fractions in the same denomination	Numerator, denominator, proper fraction, factor, highest common multiple, lowest common multiple, equivalents, common numerator, common denominator, decimal equivalent, simplify, simplify, simplest form, mixed number, whole number, mixed number
I can compare and order fractions including those bigger than 2	
I can add and subtract fractions with different denominators and mixed numbers	
I can multiply simple pairs of proper fractions, writing the answer in the simplest form such as $1/4 \times 1/2 = 1/8$	
I can divide proper fractions by whole numbers such as $1/3 \div 2 = 1/6$	
I can link a fraction with division and work out decimal fractions such as 0.378 is $3/8$ as a simple fraction	
I can explain the place value of any digit in a number with up to 3 decimal places and multiply or divide these by 10, 100 or 1000	
I can multiply numbers less than 10 with up to 2 decimal places by whole numbers	
I can use written division methods for numbers with up to two decimal places	
I can solve problems which require answers to be rounded to specified degrees of accuracy	
I can use equivalences between simple fractions, decimals and percentages to help me solve problems	
Measurement	
I can solve problems involving the calculation and conversion of units of measure, using decimal notation	mass, gram, kilogram, capacity, volume, millilitre, litre, millimetre, centimetre, kilometre, foot, inch, ounce, pound, stone, pint, gallon, imperial, metric
I can use, read, write and convert between standard units. I can convert measurement of length, mass, volume and time from a smaller unit to a larger unit and vice versa. I can do this using decimal notation up to the three decimal places	Perimeter, area, volume, cubic units (eg cm cubed), cuboid, width, length, rectangle, rectilinear, parallelogram, perpendicular height
I can convert between miles and kilometres	
I can recognise that shapes with the same areas can have different perimeters and vice versa	
I can recognise when it is possible to use formulae to find the areas or volumes of shapes	
I can calculate the areas of parallelograms and triangles	
I can calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres (cm ³), cubic metres (m ³). I can extend this to other units e.g. mm ³ and km ³	
Properties of Shapes	
I can draw 2-D shapes using dimensions and angles I am given	Angle, right angle, acute, obtuse, reflex, protractor, horizontal, vertical, parallel, perpendicular, polygon, regular, irregular, 2 dimensional, 3 dimensional, flat face,
I can recognise, describe and build simple 3-D shapes, including making nets	

I can compare and classify geometric shapes based on their properties and sizes. I can also find unknown angles in any triangles, quadrilaterals or regular polygons	curved surface, edge, curved edge, vertex, vertices, apex, radius, diameter, circumference
I can illustrate and name parts of circles, including radius, diameter and circumference. I know that the diameter is twice the radius	
I can recognise angles where they meet at a point, are on a straight line or are vertically opposite. I can then find any missing angles	
Position and Direction	
I can describe positions in all four quadrants on a full coordinate graph	Translation, rotation, reflect, reflection, up, down, right, left, co-ordinates, quadrant, x axis, y axis, horizontal, vertical,
I can draw and translate simple shapes on the coordinate plane and reflect these in the axis	
Statistics	
I can interpret and construct pie charts and line graphs. I can use these to solve problems	bar chart, pictogram, frequency table, tally chart, pie chart, discrete data, continuous data, line graph, sum, difference, comparison, interpret, mean, median, mode, range
I can calculate and interpret the mean as an average	
Ratio and Proportion	
I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three places if I need to	Ratio, proportion, 'for every.. there are...' part, whole, scale factor, enlargement, similar shapes, length, width, perimeter
I can solve problems involving the calculation of percentages. I can also use percentages for comparisons	
I can solve problems involving shapes where the scale factor is known or can be found	
I can solve problems involving unequal sharing and grouping. I can use my knowledge of fractions and multiples	
Algebra	
I can use simple formulae	term to term rule, variable, unknown, expression, equation, formula, one-step equation, two-step equation, substitution, pairs of unknowns, enumerate
I can create and describe linear number sequences	
I can record missing number problems algebraically	
I can find pairs of numbers which complete an equation with two unknowns	
I can create a list of possibilities of the combination of two variables	

Spinfield School Knowledge, skills and vocabulary progression map

Subject: Physical Education

Year: 6

Healthy Bodies	Vocabulary
Explain the effect of exercise on my body using scientific language	Foetus, embryo, womb, gestation, toddler, elderly, puberty, circulatory system, heart, blood, blood vessels, veins, arteries, oxygenated, deoxygenated, valve
Explain how some bacteria helps my body and other bacteria can be harmful	
Healthy Minds	Mental health, Mindset, positive, resilient, forward thinking, flexible , target, goal, Lifestyle choices, self-belief
Set achievable goals and know the steps to take to achieve them.	
Know that 'mental health' is about feeling good about myself, having good friends and family and being focussed on what I want to achieve	
Know that some people are more confident than others and confidence levels can affect performance	
Know how to control and influence my feelings.	
Diet and Hygiene	Carbohydrates, proteins, vitamins, fats, healthy choices, saturated fats, Cholesterol, bloodstream, endorphins
Explain how a typical diet is broken down into the various vitamins and minerals and say whether it is healthy or not.	
Know that different foods give us different benefits and how these should be combined for a healthy diet	
Know that high cholesterol can cause our bloodstreams to narrow or get blocked and this can be very harmful.	
Know when I exercise my body produces chemicals called endorphins which make my body feel good	
Know that sleep helps my physical and emotional health and that there are two main types of sleep (REM / Non-REM).	Physical and emotional health
Personal and social	Mental health, lifestyle, friendship
Understand that 'being healthy' includes looking after my mind and body and having a healthy lifestyle.	
Know that if I have good friends and do the activities I enjoy I am likely to be happier.	
Suggest ways that I can help provide a safe and healthy environment.	Environment
Swimming	Performance, confidence,arms, front crawl, water, paddle, dive, depth, sink, surface,float stroke
Swim a minimum of 10m wearing everyday clothes.	
Climb out of the pool without using the steps.	
Swim a minimum of 25m using any efficient stroke.	
Do a sequence of rolls, twists and turns in deep water with confidence.	
Acquiring and developing skills	Teamwork, respect, attack, movement, receive, possession, control, accuracy, speed, shoot, soft, cushion
Drop a football and kick it accurately, as it bounces upwards.	

Do a 'basketball' dribble, bouncing a ball between a row of cones, controlling the bounces with my fingers.	Teamwork, respect, balance, movement, receive, accuracy, control, body position, close, weave, attack, outwitting
Hit a ball using a range of different bats both accurately and for distance.	
Applying skills and using tactics	
Plan a course of actions against an opponent based on my strengths and their weaknesses	strengths weaknesses competitive
Evaluating and improving performance	
Perform better by taking into account my own previous tactics and also how successful they were	Tactics,, performance, strategy, method, teamwork
Advise others in my team of the best strategy based on the combined strengths and weaknesses of everyone.	

Spinfield School Knowledge, skills and vocabulary progression map

Subject: Physical Education

Year: 6

Dance	Vocabulary
I can make up and perform dances with different styles confidently	Dance style, technique, formation, pattern, rhythm, variation, improvisation, unison, canon, action, reaction, phrases, interpret, exploration, action, space, dynamics and relationships.
I can put a wide range of dance skills in sequences and routines.	
I can combine sequences to make a longer dance with a clear beginning, middle and end.	
I can explain clearly how to make a routine better.	
Games	Possession, passing, dribbling, shooting, shield ball, width, depth, support, marking, covering, repossession, attackers, defencers, marking, team play, boundary, defending, forehand, backhand.
I can control equipment in a game against other people or a team when I am moving quickly.	
I can choose and use the correct skills in a game against other people or other teams.	
I can affect a game by using attack and defence skills successfully.	
I can work as part of a team to achieve a collaborative goal.	
Evaluating performance	Analyse, improve and evaluate.
I can analyse and improve my own performance in a range of activities and sports to reach a personal best.	
I can explain what I have done and how well I have achieved.	
Gymnastics	Dynamics, combination, contrasting, control, mirroring, matching, accurately, refine, evaluate, display, asymmetry, performance, create, symmetry, refinements, assessment, suppleness, strength, warm up, cool down, muscles, joints, explore, rotation, spin, turn, shape, landing, take off and flight.
I can work on different apparatus and spaces using accurate and consistent balances, jumps, movements and turns.	
I can move with control and fluency over a variety of different spaces and apparatus.	
I can challenge myself by choosing more complex balances and movements.	
I can change a group sequence to make it more challenging	
Athletics	Sprint, team, distance, measure, height, target, pacing, rhythm, obstacles, leading leg, hurdles, throwing, speed, accuracy, take off, stamina, time, release, performance, height, control, measure, time and position.
I can gain the best results by using strength, technique and control when running, sprinting, throwing and jumping.	
I can analyse my own technique and improve it to get better results.	
I can use more than one technique successfully when completing an athletics event	
Swimming	water safety, tread water, survival, strokes (front and back crawl, butterfly, breaststroke), scull, swim
I can swim over 25 metres	
I can swim using a range of strokes effectively.	
I can make myself safe in the water in different situations.	

Word Reading	Vocabulary
I can read aloud and understand the meaning of the words on the Year 5/6 list	Definition Fluency Accuracy
Comprehension	
I can read, enjoy, understand and discuss books that are written by different authors, in different styles. I can read books that are structured in different ways for different purposes e.g. for fun or research	Retrieval Prediction Comprehension
I can read, enjoy and understand a wide range of books, including from our literary heritage and books from other cultures and traditions	Inference Deduction
I can discuss ideas, events, structures, issues, characters and plots of the texts across a wide range of writing	Summarise Evidence
I can discuss and compare themes, structures, issues, characters and plots within a book and between different books	Comparison structure themes
I can read, understand and learn from a wide range of poetry and can learn longer poems by heart	issues plots
I can show my understanding of texts by summarising the main ideas over a paragraph or a number of paragraphs, finding key details as evidence to support my views	language audience
I can understand how language, structure and presentation contribute to meaning of a text	purpose figurative language
I can talk about how authors use language, including figurative language and the impact it has on the reader	
I can show my understanding of texts and poems in presentations and debates and can present information using notes I have created to help me focus on the topic in my presentation	

Animals, including humans	Vocabulary
I can identify and name the main parts of the circulatory system, and describe the functions of the heart, blood vessels and blood	Circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration, diet, health.
I can recognise the impact of diet, exercise, drugs and lifestyle on the way the body functions.	
I can describe the ways in which nutrients and water are transported within animals, including humans	
Electricity	
I can show that the brightness of a lamp or the volume of a buzzer depends on the number and voltage of cells used in the circuit	Cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, Amps, Volts, Cell
I can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and on/off position of switches	
I can draw a diagram using recognised symbols to represent a simple circuit	
Evolution and inheritance	
I can explain that the kinds of living things on that live on earth now are different from those that inhabited the Earth millions of years ago and that fossils provide this information	Fossils, Adaptation, Evolution, Characteristics, Reproduction, Genetics
I can explain that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	
I can give examples of how animals and plants are adapted to suit their environment in different ways and can explain that adaptation may lead to evolution	
Light	
I can show that light appears to travel in straight lines	Refraction, Reflection, Light, Spectrum, Rainbow, Colour, dispersal, prism, angle of reflection, angle of incidence
I can explain that light travels in straight lines and that objects are seen because they give out or reflect light into the eye.	
I can demonstrate and explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes	
I can demonstrate that light travels in straight lines to show why shadows have the same shape as the object that cast them	
Living things and their habitats	

I can describe how plants, animals and microorganisms are classified into broad groups according to common observable characteristics and based on similarities and differences	Classification, Vertebrates, Invertebrates, Micro-organisms, Amphibians, Reptiles, Mammals, Insects
I can give reasons for classifying plants and animals based on specific characteristics	
Working Scientifically	
I can plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Data, classify, extrapolate, evidence, investigate, interpret, predict, variables, controlled variables, line graphs, scattergrams, fair test, safety, method, results, conclusion, evaluation, patterns, comparative, control, anomalies.
I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	
I can record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar charts and line graphs.	
I can use test results to make predictions to set up further comparative and fair tests.	
I can talk about and present findings from enquiries, including conclusions, casual relationships and explanations of how reliable the information is.	
I can identify scientific evidence that has been used to support or refute ideas or arguments.	
I can describe and evaluate my own and other people's scientific ideas using evidence from a range of sources.	
I can group and classify things and recognise patterns	
I can find things out using a wide range of secondary sources of information	
I can use scientific language and ideas to explain, evaluate and communicate my methods and findings.	

Spelling	Vocabulary
I can add suffixes beginning with vowel letters to words ending in -fer e.g. referring, preferred, referee, preference	Prefix Suffix Silent letter Dictionary Thesaurus Homophones
I can use prefixes involving the use of a hyphen e.g.co-ordinate, re-enter	
I can distinguish between words which sound the same but have different meanings and other words which are often confused e.g. lose/loose	
I can use dictionaries to check the spelling and meaning of words	
I can use knowledge of root words, prefixes and suffixes in spelling and understand that the spelling of some words needs to be learnt specifically	
I can use a thesaurus with confidence	
Handwriting	Legible, Fluency Speed Consistency
I can write legibly, fluently and with increasing speed by choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters	
I can write legibly, fluently and with increasing speed by choosing the writing implement that is best suited for a task	
Composition	Audience Purpose Effect Plan Draft Evaluate Edit Atmosphere Dialogue Cohesion Composition Proof-read Paragraphs Tense Subject and verb agreement Precising longer passages
I can change my writing to fit the audience and purpose and choose the correct form and change the language and sentence length for the purpose	
I can plan my writing by recording my first thoughts and building on those ideas using what I have read or need to find out about as necessary	
I can plan a detailed character and / or setting to have an effect in the reader and use ideas from what I have read, heard and seen in other stories, plays or films	
I can use grammar and vocabulary which is suited to the purpose of my writing	
I can write pieces describing settings, characters and atmosphere and include speech that helps picture the character's personality or mood as well as moving the action forward	
I can draft and write by accurately précising longer passages	
I can use different techniques to make my writing flow and link paragraphs	
I can set out my work using headings, sub-headings, columns, tables or bullet points to structure the text and to guide the reader	
I can give reasoned feedback on mine and others' work to improve it	
I can give reasoned feedback on a text and suggest changes to vocabulary, grammar and punctuation to make the meaning clearer	
I can mark and edit work to have the correct tense throughout	
I can mark and edit work to have the correct subject and verb agreement	

I can read work looking for spelling errors and correct them using a dictionary	
I can proof-read for punctuation errors, including use of semicolons, colons, dashes, punctuation of bullet points in lists, use of hyphens	
I can confidently perform my own work to a group and make sure it sounds interesting, controlling the tone and volume so that its meaning is clear	
Vocabulary, Grammar and Punctuation	
I can change the vocabulary to suit the purpose such as using formal and informal language appropriately in my writing	In addition to vocabulary learnt in Y5 Synonyms Antonyms Passive Active Informal speech Direct/indirect speech Cohesive devices Headings, subheadings, columns, bullets, tables Semi-Colon, Colon, Dash, Ellipses, Bullet points, Hyphens Subject/Object Adverbial, prepositional, noun phrases Phrase/clause
I can understand how words are related by meaning as synonyms and antonyms	
I can use the passive to affect the presentation of information in a sentence	
I can understand the difference between structures typical of informal speech and structures appropriate for formal speech and writing	
I can link ideas across paragraphs using a wide range of cohesive devices such repetition of a word or phrase, grammatical connections and ellipsis	
I can use layout devices such as headings, sub-headings, columns, bullets, or tables, to structure text	
I can use the semicolon, colon and dash to mark the boundary between independent clauses e.g. It's raining; I'm fed up	
I can use the colon to introduce a list and use semicolons within lists	
I can use bullet points to list information	
I can use hyphens for clarity e.g. man eating shark or man-eating shark	
I can understand the following words: subject, object, active, passive, synonym antonym, ellipsis, hyphen, colon, semicolon and bullet points	