

	Autumn Term	Spring Term	Summer Term
Question	Is it worth the risk?	Is the journey more important than the destination?	Can we accept our differences?
Characteristic	Risk	Ambition	Acceptance
Quotation	We are all cabinets of wonder.	Life must not be spent always hoping, always waiting. Life is for living.	Happiness can exist only in acceptance.
English Text	Wonderstruck By Brian Selznick	Kensuke's Kingdom By Michael Morpurgo	The Boy At The Back Of The Class By Onjali Q. Rauf
Maths	Whole Numbers: comparing to 100 000 Whole Number: rounding numbers to nearest 10 and 100 Whole Numbers: Multiplication by (3 by 2 digits) Division (4 digits by 1) Squares and Rectangles Area and Perimeter	Fractions: mixed numbers, improper fractions, adding and subtracting Decimals: tenths, hundredths, thousandths, addition and subtraction Measurement: Time 24 hour clock	Symmetry Tessellations Statistics: Tables and Line Graphs Angles Perpendicular and Parallel Lines
Science	Science Biographies -Alexander Graham-Bell (telephone) -Isaac Newton Light & Optics -Speed of light, light travels in straight lines -Transparent & opaque objects -Reflection: mirrors- plane, concave, convex -Use of mirrors in telescopes & some microscopes -The spectrum Sound -Sound is caused by vibration, sound waves -Speed of sound: Concorde -Qualities of sound: Pitch & intensity -Human voice: larynx, vocal chords -Sound & the ear -Protecting your hearing Vision: How the eye works -Parts of the eye: cornea, iris, pupils, lens, retina -Optic nerve -far sighted, near sighted Hearing: How the ear works -Sound as vibration -Outer ear, ear canal -Eardrum, auditory nerve, hammer, anvil, stirrup, cochlea	Ecology -Habitats, interdependence -Concept of 'the balance of nature' -Food chains: producers, consumers, decomposers -Ecosystems -Fossils -Man made threats to the environment: Air pollution, water pollution & ways to protect the environment: conservation, recycling Geology The Earth's Layers -Crust, mantle, core -Movement of tectonic plates -Earthquakes: Faults, San Andreas fault, seismograph, Richter scale, tsunamis -Volcanoes: Magma, lava, active, dormant, extinct, Famous Volcanoes: Vesuvius, Krakatoa, Mount St Helens -Hot springs & geysers: Old Faithful -Theories of how the continents & oceans were formed: Pangaea & continental drift How mountains are formed -Folded, fault block & dome shaped mountains Rocks -Formation & characteristics of metamorphic, igneous & sedimentary rock Weathering & Erosion -Physical & chemical weathering, weathering & erosion by water, wind & glaciers -Formation of top soil: top soil, sub soil, bedrock	Human Body Muscular System -Involuntary & voluntary muscles Skeletal System -Skeleton, bones, marrow -Musculo-skeletal connection: ligaments, tendons, Achilles tendon, cartilage Nervous System -Brain: medulla, cerebellum, cerebrum, cerebral cortex, spinal cord, nerves, reflexes Animals & Living Things -Classification of animals: warm & cold blooded, vertebrates & invertebrates, different classes of vertebrates, fish, amphibians, reptiles, birds, mammals
Art & Design	Elements of Art: Light -Use of light & shadow: Supper at Emmaus, Belshazzar's Feast, The Milkmaid, The Fighting Temeraire Elements of Art: Space -Two & three dimensional, height, width, depth -Depth and illusion, foreground, middle ground, background -The Peasant Wedding, The Gleaners History of Art: Monuments Of Rome & Byzantium: Trajan's Column, The Pantheon, The Arch of Constantine, Hagia Sofia Collage -Use precise cutting skills -Use the skills of: coiling, overlapping -Know the striking effect work in a limited colour palette can have through experimentation -Use mosaic -Use montage -Use tessellation & other patterns in collage Painting -Make and match colours with increasing accuracy. -Use more specific colour language e.g. tint, tone, shade, hue. -Choose paints and implements appropriately.	Types of Art: Embroidery: cross-stitch, weaving, basic sewing technique -Tapestry: Icarus, Christ's charge to Peter, Royal School of Needlework – Coronation dress, Kate Middleton's wedding dress Textiles -Use the basics of cross-stitch & backstitch -Know how to colour fabric -Make weavings such as 'God's eyes' -Use the basics of quilting, padding & gathering fabric -Match the tool to the material. -Combine skills more readily. -Choose collage or textiles as a means of extending work already achieved. Colour Vocabulary	Elements of Art: Design -How elements of art work together -The Fall of Icarus, The Scream, Portrait of Charles I, Henrietta Maria and their children Printing -Make printing blocks -Make a one colour print -Build up layers of colour to make prints of 2 or more colours -Know how printing is used in everyday life of designers & artists -Compare the methods & approaches of different designers in their print techniques - marbling, silkscreen, cold-water paste -Explore print from other cultures & time periods Drawing -Make informed choices in drawing including paper and media. -Alter and refine drawings and describe changes using art vocabulary. -Collect images and information independently in a sketchbook. -Use research to inspire drawings from memory and imagination. -Explore relationships between line and tone, pattern and shape, line and texture. Colour Vocabulary

	<p>-Plan and create different effects and textures with paint according to what they need for the task. -Show increasing independence and creativity with the painting process. Colour Vocabulary</p>		
<p>Computing</p>	<p>Communicating Autumn 1- Different Media -Media can be sourced from a variety of places including the internet -Text sound and video can be edited and recombined to create sequences -Capture still images from video independently. -Capture video using a range of devices. -Create a stop frame animation which includes a soundtrack. -Make use of effects including transitions and animations to enhance their digital texts. -Use simple photo and video editing tools to change the appearance of images. -Import video and sound into editing software and combine clips to make longer sequences.</p> <p>Autumn 2- Sharing Media -Digital media can be shared via the Learning Platform and the internet to reach a wider audience -Digital media may be enhanced to achieve a desired outcome -Find media and download it from the internet. -Manage digital resources on a range of devices. -Share digital outcomes with a wider audience on the internet through a range of methods eg learning platform, blogs, podcast. -Communicate via email. -Use video to communicate as a class.</p> <p>Possible resources: Windows moviemaker Puppetpals Morfo istopmotion imovie Prezi Garageband</p> <p>ESafety: Content -Understand the Internet contains fact, fiction and opinion and begin to distinguish between them. -Know when an email should not be opened or messages ignored. -Know that the aim of many sites is to sell something or gain personal information.</p>	<p>Finding Out Spring 1- Search Engines -Web pages have a unique address or url (unique resource locators). -Although keywords can be used to search for information, results may not always be useful. -Web browsers allow you to keep bookmarks and keep a history of sites visited. -Although search engines can locate information on the internet, results may need to be skimmed to save time. -The copyright of images and sounds should be considered when downloading them from the internet. -Information may be accessed and shared on a range of different digital devices. -Access a website by typing in the url, selecting from favourites or from the history. -Find images and text relating to a specific topic by using keywords to search. -Skim and scan search engine results and look at their web address for clues as to their usefulness -Answers specific questions on a topic by creating a report or presentation. -Discuss how technology is used extensively in peoples working and personal lives eg selling, research, communicating, sharing, and managing information. -Discuss the impact of ICT on society. -Identify ways in which companies use the internet for marketing.</p> <p>Spring 2- Sensors -Conditions such as light intensity, temperature and sound level can be measured by devices attached to a computer. -Different conditions will be measured by different sensors. -Take readings as part of a science or humanities activity using a simple sensor(s) attached to a computer or data logger. -Use appropriate sensors attached to a computer or data logging device to take readings to investigate a specific question or theory. -Understand how sensors in the environment control devices. -There are advantages in using computers to monitor and log data such as accuracy and reliability over long periods of time.</p> <p>Possible resources: itunes 2investigate Web based databases eg Amazon, Argos, M&S, BBC weather, audio networks Apps – weather, commercial companies Data loggers</p> <p>ESafety: Contact -Know when an email should not be opened or messages ignored. -Understand that online communication is not always confidential and that it can be monitored. -Know that anyone can create a user showing any age or gender and people you meet online may not be who they say they are (social networking, chat rooms and instant messenger).</p>	<p>Computing Summer 1- Graphics -Graphics software can be used to select, copy, cut and paste areas of a picture and to automate some tasks. -Create and manipulate graphics within a graphics package, move, rotate and re-size graphic elements. -Use tools to explore the effects of cutting, copying and pasting areas of an image.</p> <p>Summer 2- Simulations and gaming -Explore the effect of changing the variables in simulations and use them to make and test predictions, changing the variables in a simulation to achieve a given outcome. -Record the outcome of choices in a simulation systematically to help achieve an outcome. -Evaluate an online game. -Who creates games? What's involved eg design and programming. • How do computers help in the design process?</p> <p>Possible resources: Cargobot PowerPoint Scratch Kodu</p> <p>ESafety: Conduct -Know there are writing conventions for electronic communication (language, tone, accuracy).</p>
<p>Design & Technology</p>	<p>Design – Make - Evaluate (Aspect of D&T: Electrical Systems) -Gather information about needs and wants, and develop a design criteria to inform the design of products that are fit for purpose, aimed at particular individuals or groups (Design) -Generate, develop, model and communicate realistic ideas through discussion and, as appropriate, annotated sketches, cross-sectional and exploded diagrams (Design) -Order the main stages of making and then select from and use tools and equipment to cut, shape, join and finish with some accuracy. (Making) -Select from and use materials and components, including construction materials and electrical components according to their functional properties and aesthetic qualities (Making)</p>	<p>Design – Make – Evaluate (Aspect of D&T: Structures) -Generate realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product. (Design) -Develop ideas through the analysis of existing products and use annotated sketches and prototypes to model and communicate ideas. (Design) -Order the main stages of making and then select and use appropriate tools to measure, mark out, cut, score, shape, assemble with some accuracy (Making) -Explain their choice of materials according to functional properties and aesthetic qualities. (Making) -Use finishing techniques suitable for the product they are creating. (Making)</p>	<p>Design – Make – Evaluate (Aspect of D&T: Mechanical Systems) -Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. (Design) -Use annotated sketches and prototypes to develop, model and communicate ideas. (Design) -Order the main stages of making and then select and use appropriate tools with some accuracy to cut, shape and join paper and card. (Making) -Select from and use finishing techniques suitable for the product they are creating. (Making) -Investigate and analyse book, and where available, other products with lever and linkage mechanisms. (Evaluate)</p>

	<ul style="list-style-type: none"> -Investigate and analyse a range of existing battery-powered products (Evaluate) -Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work. (Evaluate) <p>Circuits & Switches</p> <ul style="list-style-type: none"> -Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. -Apply their understanding of computing to program and control their products. -Know and use technical vocab relevant to the project. -Illuminated sign, nightlight, table lamp, noise making toy 	<ul style="list-style-type: none"> -Investigate and evaluate a range of existing shell structures including the materials, components and techniques that have been used. (Evaluate) -Test and evaluate their own products against design criteria and the intended user and purpose. (Evaluate) <p>Shell Structures</p> <ul style="list-style-type: none"> -Develop and use knowledge of how to construct strong, stiff shell structures. -Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. -Know and use technical vocab relevant to the project. -Gift boxes, desk tidy, party boxes, keep safe boxes etc. 	<ul style="list-style-type: none"> -Evaluate their own products and ideas against criteria and user needs, as they design and make. (Evaluate) <p>Levers & Linkages</p> <ul style="list-style-type: none"> -Understand and use lever and linkage mechanisms. -Distinguish between fixed and loose pivots. -Know and use technical vocab relevant to the project. -Story book, poster, class display, cards, information books etc.
Geography	<p>Globe / World Map: North America</p> <ul style="list-style-type: none"> -Climates, landscape, people, culture, settlements, economic activity 	<p>Spatial Sense</p> <ul style="list-style-type: none"> -Maps of the local area, changes to locality over time -Tropics of Cancer & Capricorn <p>Globe / World Map: Japan</p> <ul style="list-style-type: none"> -Earthquake, monsoon, typhoon, tsunami, daimyo, shogun, samurai, bushido, chopsticks, origami, kimono, geography, culture, feudal Japanese History & culture 	<p>Globe / World Map: Mediterranean Europe</p> <ul style="list-style-type: none"> -Climate, food, landscape, settlements <p>Globe / World Map: Eastern Europe</p>
History	<p>Ancient Rome: The Empire, Decline & Fall of Rome</p> <p>Ancient Greece: democracy, tyrant, philosopher, Olympic Games, Paralympic Games, Spartan</p>		The Civil War – Local Empires
Languages	<p style="text-align: right;">Academy Specific</p> <p>Early Start French Programme I</p> <p>Reap learning from Year 3</p> <p>Unit 10 – Quelle est la date de ton anniversaire? - When is your birthday?</p> <p>Unit 11 – Les jours de la semaine - Days of the week</p>	<p style="text-align: right;">Academy Specific</p> <p>Early Start French Programme I</p> <p>Unit 12 – Quelle est la date aujourd’hui? - What is the date today?</p> <p>Unit 4a – L’alphabet - The alphabet</p> <p>Unit 13 – As-tu un animal?</p>	<p style="text-align: right;">Academy Specific</p> <p>Early Start French Programme I</p> <p>Unit 14 – As-tu des frères et des soeurs</p> <p>Unit 15 – Consolidation and assessment</p> <p>Unit 16 – En Classe</p>
Music	<p>Vocal</p> <ul style="list-style-type: none"> -Sing songs from memory with accurate pitch -Sing in tube -Maintain a simple part within a group -Understand the importance of pronouncing the words in a song well -Show control in voice when singing <p>BBC Ten Pieces: Ravi Shankar – Symphony – finale (excerpt)</p> <p>Composers & their Music</p> <ul style="list-style-type: none"> -Tchaikovsky, Suite from Swan Lake -Edward Elgar, Pomp & circumstance March No 4 -Gustav Holst, Jupiter & Neptune from The Planets Suite <p>Elements of Music</p> <ul style="list-style-type: none"> -Recognise a steady beat, accents, & the downbeat; play a steady beat -Move responsively to music -Sing unaccompanied, accompanied & in unison -Recognise harmony, sing in rounds -Recognise verse & refrain -Continue with timbre & phrasing -Review names of musical notes; scale as a series of notes; singing the C major scale using ‘do re mi’ etc <p>Songs</p> <ul style="list-style-type: none"> -Alouette 	<p>Percussion</p> <ul style="list-style-type: none"> -Play notes on instruments with care so they sound clear -Perform with control & awareness of what others in groups are signing or playing <p>BBC Ten Pieces: Grażyna Bacewicz – Overture</p> <p>Elements of Music</p> <ul style="list-style-type: none"> -Understand that melody can move up & down -Hum the melody whilst listening to music -Echo short rhythms & melodic patterns -Play simple rhythms & melodies <p>Instruments: Orchestra</p> <ul style="list-style-type: none"> -Review families of instruments: strings, bass, woodwind, percussion -Brass family: trumpet, French horn, trombone, tuba (listen to William Tell Overture (trumpet), Horn Concertos by Mozart (French horn) -Woodwind family: flute, piccolo, clarinet, oboe, bassoon (listen to Debussy’s Prelude to the Afternoon of a Faun (flute), George Gershwin, Rhapsody in Blue (clarinet), Jean Sibelius, The Swan of Tuonela) <p>Songs</p> <ul style="list-style-type: none"> -Cockles & Mussels -London’s Burning 	<p>Tuned Instruments</p> <ul style="list-style-type: none"> -Play notes on instruments with care so they sound clear -Perform with control & awareness of what others in groups are signing or playing <p>BBC Ten Pieces: Delia Derbyshire – Doctor Who Theme (original theme composed by Ron Grainer)</p> <p>Elements of Music</p> <ul style="list-style-type: none"> -Recognise short & long sounds -Discriminate between fast & slow; gradually slowing down & getting faster -Discriminate between differences in pitch; high & low -Discriminate between loud & soft; gradually increasing & decreasing volume <p>Songs</p> <ul style="list-style-type: none"> -On Ilkley Moor Baht’At
	<p>Listening & Applying Knowledge & Understanding</p> <ul style="list-style-type: none"> -Recognise how musical elements can be used together to compose music -Know the symbol for an arrest in music & use silence for effect in my music <p>Composing</p> <ul style="list-style-type: none"> -Compose & perform melodies & songs -Use sound to create abstract effects -Recognise & create repeated patterns with a range of instruments 		

	<p>-Create accompaniments for my tunes -Use drones or melodic obstinate (based on pentatonic scales) in accompaniments -Choose, order, combine & control sounds with awareness of their combined effects Notation: crochet, minim, semi-breve, stave, treble clef, crochet rest, minim rest, semibreve rest, bar line, quaver, time signatures, p, pp, f, ff</p>		
PE	Football Hockey	Dance Netball	Athletics Cricket
RE	Signs, Symbols and Parables Light & Dark Christmas	Muhammad, Mosques and Prayer Caring and Praying Easter	Visiting and Reviewing a Church Jewish Celebrations and Family Life
PSHE / SRE	<p>Health and wellbeing. What makes a balanced lifestyle and making choices; drugs common to everyday life; hygiene and germs *the characteristics of healthy family life, commitment to each other, including in times of difficulty, protection and care for children and other family members, the importance of spending time together and sharing each other's lives. Recognising what they are good at; setting goals. Changes at puberty. Changes that happen in life and feelings associated with change How to keep safe in local area and online; people who help them stay healthy and safe *how to recognise if family relationships are making them feel unhappy or unsafe, and how to seek help or advice from others if needed.</p>	<p>Relationships. Keeping something confidential or secret; when to break a confidence; recognise and manage dares. Acceptable and unacceptable physical contact; solving disputes and conflicts amongst peers *that families are important for children growing up because they can give love, security and stability. Listen and respond effectively to people; share points of view *the importance of respecting others, even when they are very different from them (for example, physically, in character, personality or backgrounds), or make different choices or have different preferences or beliefs.</p>	<p>Living in the wider world. Discuss and debate health and wellbeing issues. Appreciating difference and diversity in the UK and around the world Sustainability of the environment across the world. Becoming a critical consumer; Decisions about saving and spending Spending and saving priorities</p>
Enrichment & Experience	<p>Woolsthorpe Manor Visitor - optician</p>	<p>Weston Park Museum – 'Rock it' workshop or Comparing Habitats, Rocks and Soils activity days at Perlethorpe, Brackenhurst or Sherwod Forest Visitor – Mrs Hookings? Embroidery/sewing</p>	<p>Local church visit The Civil War Museum - Newark Y4 sleep over</p>

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