Shenfield St Mary's CE Primary School - YEAR 6

	Autumn Term	Spring Term	Summer Term
SCIENCE	The Explorer	Goodnight Mr Tom	On Dangerous Ground
	Evolution and inheritance	Staying Alive	Circle of life .
	 Must: Observe closely and explain differences in appearance. Describe how parents and offspring look similar but different. Present data in a variety of ways. Should: Explain why parents and offspring look different. Explain simply how things change and evolve over 	 Must: Recognise the need to eat a healthy balanced diet. Take and record measurements. Should: Understand the function of parts of the circulatory system. Explain the effect of drugs on the body. Could: 	 Must: Explain how plants reproduce Explain how new plants can be grown from cutting and bulbs. Should: Describe the differences in the life cycles of different animals. Describe the process of reproduction in some animals.
	 time. Recognise the time scales involved in evolution. Explain how evidence can be used to support ideas. 	 Investigate some effects of exercise on the body. Present data in appropriate ways. Use evidence to support or refute an assertion. 	 Report and present their findings from enquiries. Could: Explain the differences between the life cycles
	 Could: Interpret evidence of fossils to explain how things have changed over time. Explain the contribution made by people to our 	CHILD-LED INVESTIGATION- Devise an investigation which uses what you have learned about how lungs work.	of different animals. Growing Up and Growing Old
	understanding of evolution.	Classifying Critters Must:	Must:Describe some of the changes that happen as
	Light	Recognise fungi, plants and microbes.Name a range of living things.	children grow up into adults. Give an explanation of what happens during
	Must:Recognise that when light is blocked, a shadow is formed.	 Observe carefully in order to identify living things. Use a branching key. Should: 	 pregnancy Describe how various mammals have different gestation periods.
	 Describe that reflections can be seen in shiny surfaces. Make measurements and present these in a table. Should: Recognise that light travels from a variety of sources, and that when it is blocked, a shadow is formed. 	 Explain the differences between fungi, plants and microbes. Record and display ideas in various ways and justify explanation. Ask a range of questions to put things into groups. Make a branching key. Could: 	 Describe some of the changes that happen during puberty. Should: Describe how our height changes as we get older. Present scientific data accurately in a variety of ways and identify a pattern in it.
	 Describe how when light hits a shiny surface, it is reflected. Explain that light sources are seen when light from them enters the eyes. Make careful measurements of shadows. 	 Explain why we have a taxonomic system. Explain why the same observations can support different explanations. Compare and evaluate different ways of classifying organisms. 	 Describe some of the changes that happen as we reach old age. Discuss some of the problems that old people face.

- Describe a pattern in shadow size and distance to source.
- Identify and manage variable in an enquiry.
- Present findings and conclusion from experiments in various ways.
- Use results to make predictions and suggest further tests to carry out.

Could:

- Explain the difference between shadow formation and reflection in terms of the path of light.
- Explain using ray diagrams how light enables us to see object.

CHILD-LED INVESTIGATION-How could you prove that light travels in straight lines?

 Explain some of the reasons why humans are living longer.

Could:

- Describe how various mammals have different gestation periods.
- Describe some of the problems caused by humans living longer.
- Interpret and identify patterns from scientific data.
- Develop and create solutions for the problems associated with old age.

CHILD-LED INVESTIGATION- What can you investigate involving growth?

ART

The Explorer

Area – sculpture mask making Media –modroc Artist focus – Mayan death masks



Goodnight Mr Tom
Area – Still life
Media – photography
Artist focus – iconic WWII
photographs



On Dangerous Ground

Area – Painting
Media – paint and pastel
Artist focus –Lichtenstein



The Explorer

Children investigate burial masks through sketching and mosaic collage. Having made rainmakers, they research typical Mayan designs and add appropriate details to their instruments.

Artist focus:

Must: use materials and techniques to construct a mask; talk about the differences between their own and others' work; suggest improvements to their own work

Should: collect visual and other information; explore how visual qualities can be organised and combined for different purposes to communicate their ideas about the mask; experiment with materials and techniques to construct a mask; identify similarities and differences in their own and others' work; adapt and improve their own work according to its purpose

Goodnight Mr Tom

Children will develop an understanding of photography in the context of the World War II theme. Each child will create photo gallery, developing his or her understanding of shape, and form. The will develop photography skills including considering angles, frames, simplicity and background for effect.

Must: take a photograph. name whether a picture is portrait or landscape, identify different camera shots, know that you can frame a photograph, explain what filling the photograph means.

Should: take a photograph, name whether a picture is portrait or landscape, be able to identify shots with minimal help and attempt their own, identify when a photograph has been framed, discuss and take pictures that fill the photograph with assistance.

On Dangerous Ground

Children will investigate a range of pop art, trialling different styles and techniques. Investigate different colour techniques appropriate to their chosen artist and create a pop art picture of a volcano.

Must: use different methods to record observations of the environment and create a painting; comment on differences in others' work; suggest ways of improving their own work

Should: explore ideas about the environment; collect visual and other information by observing and recording features of the environment; use a variety of recording methods and techniques, combining and organising shape, form and space; apply colour, pattern and texture in a painting; compare and comment on ideas, methods and approaches used in their own and others' work, relating these to the purpose of the work; adapt and improve their work to realise their intentions

Could: collect visual and other information to help them with their work; experiment with materials and techniques to suit their mask design; compare the ideas, methods and approaches used in their own and others' work; modify and improve their work to realise their own intentions

Could: take photos using different shots independently considering the effect; frame a photograph without help, work independently and discuss their work and discuss the outcome; will be able to think about the concepts of simplicity and background when taking their own photos.

Could: select visual and other information and use this to develop their ideas; manipulate materials and processes and match visual and tactile qualities to their ideas; analyse and comment on their own and others' work, relating choice of methods and approaches to the purpose of the work; adapt and refine their work to reflect their view of its meaning and purpose

DT The Explorer

Children will investigate cams- their shape, size and movement. Using the unit Automata Animals, they will choose an animal from the Central American Rainforest to add to a moving mechanism to illustrate part of 'The Explorer' story.

Generate a design from research; develop a specification, model and communicate ideas. Produce lists of tools and materials and plans to make accurately assembled and well finished products within constraints. Compare final product to the original specification; test products with the intended user and critically evaluate the product, considering the views of others. Investigate famous manufacturing and engineering companies relevant to the project.

Must: children understand that a cam changes type of motion. Children can explain how a different cams make different movements. Children design and make a cam animal toy linked to the Explorer.

Should: children understand that a cam changes rotary motion into reciprocating motion and that to change the type of movement you can change the shape of the cam. Children can compare different types of cams and use ones shown to help design and make a rainforest animal that moves.

Could: children can confidently explain the types of motion recognising that a cam changes rotary motion into reciprocating motion. When explaining they use key vocabulary of cam, movement, linear motion, rotary motion, off-centre, crank handle, axle, frame structure, cam mechanism and cam follower. Children design and make a rainforest animal and explain why they have chosen the shape of cam they choose.

Goodnight Mr Tom

Children will investigate what a shelter is. They will work in groups to define a need for a shelter and design one using Tinkercad. They will list materials used, estimate cost, size and location.

Generate ideas and designs, developing them through analysis of shell structures and use CAD to model and communicate ideas. • Plan the making and use appropriate tools and software, explaining their choices. Use computer-generated finishing techniques.

Final product: Create their own shelter using online design programme.

Must: create simple objects using Tinkercad Add furniture in their shelter using Tinkercad

Should: create complex, compound objects using Tinkercad
Apply appropriate finishes to surfaces in Tinkercad

Could: create aesthetically pleasing complex objects using Tinkercad

Create a complex, collection of interlinked rooms in Tinkercad

Children will work with food materials to follow a recipe created during WW2 and compare it for taste with a modern day equivalent.

Must: Understand that seasons may affect the food available. Understand how food is processed into ingredients that can be eaten or used in cooking. Gain confidence in the skills of peeling, chopping, slicing,

On Dangerous Ground

When studying earthquakes, children to research how to make earthquake proof homes looking at properties of different materials. Children bring in knowledge of structures and materials to design a home that would withstand an earthquake. Children to also consider how to secure contents and how to add a safety aspect using pulleys that could save other people.

Must: children must recognise basic ways to secure the contents of a house, understanding ways which objects can be secured. Children understand what a strong structure would be and which materials would be best used to build a house. Children can make a basic pulley system operated by hand.

Should: children understand a number of different ways to secure items and can vary ways depending on weight of object. Children can understand properties of materials and recognise ones which are stronger. Children can use a pulley system with a made handle.

Could: as above but children can use more technical language in their descriptions and can use a motor to design their pulley system.

HISTORY	The Explorer	Goodnight Mr Tom	On Dangerous Ground A historical earthquake and volcanic eruption - own research
		Tinkercad	
		Create a complex, collection of interlinked rooms in	
		Could: create aesthetically pleasing complex objects using Tinkercad	
		Apply appropriate finishes to surfaces in Tinkercad	
		Should: create complex, compound objects using Tinkercad	
		Add furniture in their shelter using Tinkercad	
		Must: create simple objects using Tinkercad	
		design programme.	
		Final product: Create their own shelter using online	
		Paint 3D or Tinkercad.	
		aided design. They create their shelter using either	
		Creating shelters in Tinkercad, linked to WW2 Design a shelter for a purpose and discuss computer	
		food then and now.	
		meal. Children to explain fully the differences between	
		particularly high standard when preparing a ww2	
		evidencing a range of independent cooking skills of a	
		Could: Children are able to make quality products,	
		slicing, grating, mixing, kneading and baking.	
		Become increasingly skilled at peeling, chopping,	
		unicrenees.	
		differences.	
		Compare the food to recipes today and understand	
		Should: Using their knowledge and skills, know how to prepare and cook a meal following a ww2 recipe.	
		for a ww2 meal.	

Pupils will learn about the remarkable achievements of the ancient Maya. Through these activities pupils will learn about the Maya perspective of time, the calendar system, writing, maths and the environment. In doing so they should see the stark contrast between their own history and that of the Maya. Aside from learning about Maya culture, the unit will encourage pupils to move away from the tendency in applying one's own cultural values in judging the behaviour and beliefs of people raised in other cultures. Instead, pupils will be aware of the different (though not inferior) ways of doing things and the complexity of human life.

Links with Year 2 - Aztecs

Where and when did the Maya live?

Can the children:

- Research when and where the Maya lived and the type of environment they lived in
- Understand the difficulties of sustaining a civilization in a rainforest environment
- Infer how well adapted to life in the rain forest were the Maya
- Evaluate whether all Maya towns and cities were the same

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ASSESSMENT TASK

 Show an awareness of how the Maya fitted in to a wider chronological pattern of other civilisations and periods.

What was Maya writing like?

Can the children:

- learn about the Maya writing system and its uses
- identify the similarities and differences between the Maya writing system and ours
- consider what the hieroglyphs tell us of Maya culture and society
- consider how similar, and how different, Mayan and Egyptian writing were and why [assessment task]
- consider how similar and different Mayan stone age society and Stone Age Britain were

How did the Maya tell the time? Can the children:

Understand and use the Maya calendar

This unit provides children with the opportunity to look at World War II as an aspect of British history that extends pupils' chronological knowledge beyond 1066.

World War II: whose war?

Can the children:

- learn why they were important. Children will find out how the war ended and look at the celebrations of VE and VJ Day
- Develop a coherent narrative of the war, including a British and world dimension.

How significant was the Blitz?

Can the children:

- address a historically valid question related to the cause of the Blitz and its wider context.
- inform their response through thoughtfully selected relevant information.
- address historically valid questions related to the significance of the Blitz.
- Address questions related to similarity and difference

What was the impact of World War II on people in our locality?

Can the children:

- Understand how our knowledge of the impact of the war is constructed from a range of sources.
- Understand that there are similarities and differences between people and their experiences.
- Recognise how the range of resources have helped them build up their knowledge of the war on their community.

How well does a fictional story tell us what it was like to be an evacuee?

Can the children:

- Understand how our knowledge of the impact of the war is constructed from a range of sources
- Understand how far historical fiction can be constructed from a range of historical sources.
- Address historical questions related to similarity and difference between fiction and evidencebased sources.

Evacuee experiences in Britain: is this all we need to know about children in World War II?

Children will learn about some of the deadliest natural disasters focusing particularly on Pompeii and how archaeologists were able to use their finds to establish how people lived at that time.

Make links with learning about rebuilding your life/home in the Great Fire of London in Year 2, Roman life in Year 3 and the impact of significant events from WW II in Year 6.

What was the impact of the eruption of Vesuvius?

What was life like in a Roman town? Can the children:

- Explain how Roman houses were different to ours.
- Give examples of how Romans used the space in their houses.
- Describe what conditions were like in a Roman city.
- Identify different roles within society

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What would it have been like to have been in Pompeii when the volcano erupted?

- Identify the time and place of Pompeii
- Research the sequence of possible events
- Describe the like effects on the people
- Consider the range of evidence available and evaluate the accuracy of historical papers

How is this event similar or different to other significant events in history that have changed people's day-to-day lives?

- Identify one or two other significant events from their history learning (eg Great Fire of London, WWII) and list similarities and differences
- Consider how these events have impacted on decision making today
- Present their historical enquiry

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	 Write their birthdays in the Maya calendar system Understand the Maya Long Count system Recognise that there are different ways to measure time – Islam, Jews, the Maya all have different ways to mark the passage of time. What numbers did the Maya use in Maths? Can the children: Understand the link between Mayan maths and trade goods Make links with their Year 2 Chocolate topic Be able to make calculations using the Mya numerical system Be able to explain some of the similarities and differences between the Maya and the UK mathematical system Consider the inter-dependent nature of Maya cities. How do we know about the Maya? Can the children: Understand what an archaeologist does Understand the difficulty of making conclusion about the past using only material remains Recognise that there are still lots of discoveries to be made about the Maya and why Did the Maya play football like us? 	Can the children: Address questions about similarity and difference through selection and organisation or historical information and between different children's experiences of war Answer valid historical questions about the causes of the kindertransport through selection and organisation of historical information Understand similarities and differences in children's experiences and note connections and contrasts over time. New opportunities? How significant was the impact of World War II on women? Can the children: consider propaganda such as 'Dig for Victory', 'Make Do and Mend', 'Waste not, Want not!' etc. Understand the significance of World War II in terms of the role of women and how it changed Understand connections and contrasts between World War II's influence on the role of women and other events over time What did men do in World War II? Did all men have to fight? Can the children: Address questions about similarities and differences in men's experiences of WWII Construct informed responses that involve thoughtful selection and organisation of relevant historical information When was the most dangerous time to live? How different was the Blitz?	
		Can the children: • recognise the danger from attack and air raids,	
		Anderson and Morrison shelters, carrying gas masks, blackouts, duties, parents leaving or doing unfamiliar jobs	
		 appreciate connections, contrasts and trends in conflicts over time address questions related to the significance of the Blitz in the context of their broader understanding of the WW II and its broader historical context 	
GEOGRAPHY	The Explorer	Goodnight Mr. Tom	On Dangerous Ground

Visit from Mexicolore

Must: use maps to locate the continents and oceans; the Americas; Central America and the lands occupied by the Mayan civilisation; compare climates of different regions- particularly tropical rainforests; consider the basic needs of humans (food, water, shelter) and how they are met in the rainforest regions; explore life in the countries of Central America and locate ancient Mayan cities within the Yucatan Peninsula.

Should: use a relevant vocabulary when discussing the Maya, to include: latitude, longitude, climate, tropics, meso –America, humid, rainforest, emergent, canopy, understorey,

Visit Duxford IWM

Visits to secondary schools

Must: create maps to identify and locate countries involved in WW2; investigate the geographical aspects of supply and demand and the reasons for rationing during the war; investigate what was imported and from where; the impact on farming and distribution to shops; investigate the comparative safety of rural regions compared to cities and the reasons for evacuation; identify what makes a building a safe place and explore how people kept safe during WW2.

Visit PGL

Visits to secondary schools

Must: learn about the structure of the Earth and how its surface moves; learn about the different layers making up the Earth and how the continents were once joined. (Plate tectonics and continental drift); look at the location of volcanoes in the world and learn about the Ring of Fire; create world maps, which identify the Ring of Fire; identify different types of volcano and label the different parts/features; learn which countries are most in danger of earthquakes.

Should: develop an awareness of world events and follow their progress through use of the internet; learn about the financial cost of natural disasters and will consider why people still choose to live in dangerous areas.

Could: make their own model volcanoes and investigate how the build-up of pressure can cause an eruption.

MUSIC THE EXPLORER

I'll Be There

Listen and respond to Michael Jackson's music and his influence on Pop music.

Ukelele – Charanga unit (continued from Year 5)

Hold and play the Ukulele in the correct way, singing a simple song and strumming open string patterns rhythmically and in time.

Change between the chords C and F in time with the song.

Improvise different chord rhythms.

Play a clean chord of G7.

Change between the chords C and G7 in time with the song.

Sin and play at the same time.

Play the chords C, F and G7 confidently and clearly.

GOODNIGHT MR TOM

A New Year Carol

Benjamin Britten's music.

You've Got a Friend

Listen to and appraise Carole King's music - her life as a composer.

Compose using the Charanga on-screen Music Explorer Composition Tool.

Classroom Jazz 2

Listen to and appraise a range of jazz and blues music. Learn about the structure of blues music, usually in 12 bar sections. Create a short riff based composition ie. A short repeated melody.

ON DANGEROUS GROUND

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Listen to and appraise music that makes you happy. Compose using the Charanga on-screen Music Explorer Composition Tool.

Diembe Charanga lessons

Play with correct posture using alternate left and right hands.

Understand beat and rhythm and playing in time.

Play the different high and low tones.

Respond to call and response.

Understand and use dynamics.

Follow changes in tempo.

Improvising and composing rhythmic patterns.

	Play and sing a two chord song.		Understand structure.
	Christmas songs and music		Summer production
	Hold the ukulele correctly. Strum open string patterns on the ukulele rhythmically and on the beat. Play the chords C, F, G and G7. Place music listened to in its historical context. Sing confidently in a wide variety of styles with expression. Communicate the meaning/mood of a song. Sing a simple second part of a two-part song: maintain own part in a round with confidence. Perform on a range of instruments confidently to an audience. Create simple songs reflecting the meaning of the words. Compose music that reflects its given intentions e.g. a rap, a march. Change between two chords in a song. Improvise a variety of strumming patterns. Begin to experiment with different strumming patterns and possibly plucking. May begin playing three chord songs. Read and play music from treble and bass clef notation.	Identify jazz and blues music and talk about its features. Perform a song from memory with attention to phrasing, dynamics and accuracy of pitch. Continue to play by ear on pitched instruments, extending the length of phrases, melodies played. Perform with sensitivity to different dynamics, tempi. Maintain a rhythmic or melodic accompaniment to a song. Maintain own part on a pitched instrument in a small ensemble. Recognise and identify features of expression (phrasing, melody, harmony, different dynamics, metre and tempi) in an extract of live or recorded music. Compare two pieces of instrumental music from different countries/ times and discuss the similarities and differences. Arrange a song for class performance with an appropriate pitched and unpitched accompaniment. Read and play music from treble and bass clef notation.	Read and play with confidence from conventional or graphic notation. Lead/conduct a group of instrumental performers. Perform own compositions to an audience. Use appropriate technology to record work in progress and performances. Use a range of symbols (conventional or graphic) to record compositions. Use ict (computers/ipads/tablets/mp3 recorders etc) to record, sample, sequence, loop and manipulate sound to create soundscapes / compositions. Improvise using five notes or the pentatonic scale. Use musical vocabulary and knowledge to talk about and discuss music from a variety of sources, traditions and cultures, including performances of their own and others' compositions. Use musical vocabulary and knowledge to help identify areas for development or refinement when composing To sing in two parts using a melody and harmony. Write their own compositions using conventional written notation. Read and play music from treble clef and bass clef notation.
RE	The Explorer Christianity Creation/Fall - Psalm 8 Children consider what David was saying about God and the World he created through Psalm 8. They identify the focus of each verse and what it is telling us. Children will understand what Psalm 8 is telling us about humans/human nature. Children consider evidence that we are 'a little lower than angels'. Children discuss what God would hope to see if we were behaving as though we were 'a little lower than angels'. They create a poster to let people know that God is	Goodnight Mr Tom Christianity Living as a Humanist - Children will understand the meaning of Humanism using materials provided by Understanding Humanism. They will discuss and form an understanding of the key humanist beliefs and ideas: People are what matters in life The Golden Rule-Treat others as you would like them to treat you You can live without religion Science provides the most reliable source of knowledge about the world. The children will learn about some Humanist	On Dangerous Ground Christianity Pentecost- Children will take part in celebrations of Pentecost and understand its significance as part of the church curriculum. Kingdom of God- What kind of king is Jesus? Children will explain connections between The Parable of the Unforgiving Servant (Matthew 18: 21- 35) and the concept of the Kingdom of God- where God rules human lives. They will make clear connections between belief in

People of God - How can following God bring freedom and justice? Children are reminded of Old Testament prophets and the agreements they had with God. They learn more about the 10 Commandments and why thy would have been needed in OT times. They consider how a covenant is an agreement which works both ways. Children learn about Christianity through considering the metaphor of 'Salt and Light' and learn about The Five Marks of Mission. They create a visual representation of this. The children complete this unit by focusing on the fourth mark: Transform, looking at Christian Aid's Chocolate Trading Game and considering the work of Christians who work for justice. They write a persuasive letter to champion the Toilet Twinning Project. Incarnation - Children will know that The OT pieces together the story of the People of God. As their circumstances change they have to find new ways to follow God. They will explain connections between Matthew 21 v1-9. They will make clear the connections between what Christians believe about Jesus as Messiah. They will weigh up how far the world needs a Messiah expressing their own insight.

During this term one class will deliver the Junior Eucharist, Harvest will be celebrated and the Christmas Service will be delivered

Judaism

At start of first lesson recap what they have learnt previously in earlier year groups)

Judaism - use religious words and phrases to identify features of Jewish beliefs and practises, find out about special words and what they mean (Shema and Mezuzah, Hannukah, Yom Kippur)

Understand why Jews remember the story of Esther at Purim.

compare them to Christian ones. They will learn about some well- known Humanists and listen to the views of ordinary Humanist about their faith.

Salvation - Isaiah 53 and John 19 Children explain connections between theses readings and the key concepts of Messiah, Sacrifice and Salvation. They take account of the contexts and compare their ideas with ways in which Christians interpret these texts as showing the idea of Jesus as a sacrifice.

The children make clear the connection between the Christian concept of the sacrifice of Jesus and how Christians follow Jesus example in giving themselves for others.

Children weigh up how far the idea of sacrifice and the example of Jesus are inspiring in the world today and in their own thinking

Children will also take part in an Easter service this term.

Humanism

Living as a Humanist - Children will understand the of Humanism using materials meaning provided by Understanding Humanism. They will discuss and form an understanding of the key humanist beliefs and ideas: People are what matters in life The Golden Rule-Treat others as you would like them to treat you

You can live without religion Science provides the most reliable source of knowledge about the world.

The children will learn about some Humanist ceremonies (naming ceremonies, weddings etc) and compare them to Christian ones.

They will learn about some well- known Humanists and listen to the views of ordinary Humanist about their faith.

Research a recent or contemporary example of someone who exemplifies humanist values and a

beliefs into practice, for example through receiving and practising forgiveness.

They will identify ideas arising from their study of the Kingdom of God and comment on how far these are helpful or inspiring for the world today, justifying their responses.

One class will lead the Junior Eucharist this term. Confirmation classes run for those children who wish to take part.

	Moving from child to adult through Bar Mitzvah (boys) and Bat Mizvah (girls) The importance of the land of Israel (the 'promised land') for Jews and how this still causes trouble today.	humanist approach to life. (e.g. Fenner Brockway, Richard Dawkins, David Attenborough, Michael Rosen)	
COMPUTING	The Explorer E-Safety We are App planners & associated units Children analyse what GPS is and use this to create their own location based app. They then focus on promoting their app using vlog (youtuber style). Final product: Creating a powerpoint presentation for an app. Create a vlog (youtube) to promote their app. Children can: View geotagged photos on a map Understand that a smartphone is a programmable computer Search for apps addressing the problems they have identified Create an effective presentation to pitch their idea Shoot and source video and other media for a promotional video Describe the input and output capabilities of a smartphone Use GPS to geolocate photographs or other media Identify how a smartphone app might address problems they identify Be aware of their responsibilities as creators of online content Edit original and third-party content to create a promotional video Understand some of the technology underlying GPS and how this can be used Incorporate media effectively in their presentation.	Goodnight Mr Tom We are Cryptographers (Yr 5 unit) Children will learn how to use Morse code and create videos to crack and make their own codes. Final product: Create a video for their partner using code. Children can: Send and receive message using Morse and Semaphore Encrypt and decrypt messages using the Caesar and substitution ciphers Recognise the need for encryption when using the web Decrypt messages using the Caesar cipher with an unknown key Understand how to check if a web page is encrypted Compare and contrast Morse and semaphore with the internet Explain the algorithm for the Caesar cipher Decrypt messages using a general substitution cipher with an unknown key using frequency analysis Understand how to check the security certificates for a web page. Creating shelters in Tinkercad, linked to WW2 Design a shelter for a purpose and discuss computer aided design. They create their shelter using either Paint 3D or Tinkercad.	On Dangerous Ground E-Safety We are animators Children will be taught the story of Pompeii. They will create their own characters out of plasticine for their animation. Create an animation and include speech over the top of the animation. Final product: Making an animation using plasticine to retell the story of Pompeii. Can the children: Plan and write a script using appropriate software Search for relevant information using appropriate websites Use a digital video camera (or similar device) to record Import video files into video editing software Plan additional elements for film-making such as locations and props Evaluate whether information is reliable or not Arrange video files to form a complete film Cross-check information using different sources Use a variety of cameral angels and shots record Preview a movie project using software and refine, based on the preview.

	Select appropriate software and hardware to create an effective promotional video	Final product: Create their own shelter using online design programme. Can the children: Create simple objects using Tinkercad Add furniture in their shelter using Tinkercad Create complex, compound objects using Tinkercad Apply appropriate finishes to surfaces in Tinkercad Create aesthetically pleasing complex objects using Tinkercad Create a complex, collection of interlinked rooms in Tinkercad	
PE	The Explorer INDOOR Boot Camp: understand how to prepare the body for exercise; understand what fitness means; complete a range of circuit-based activities and understand the reason for doing them; understand what happens to heart rate during exercise; complete a circuit that includes activities practised with balance and coordination.	Goodnight Mr Tom INDOOR Step to the Beat: understand the value of aerobic exercise; learn how to measure heart rate and note any changes; perform aerobic activity to music; understand the value of aerobic exercise; practise and apply a sequence of step moves to the beat of the music; understand the value of step-based exercise and activities to music.	On Dangerous Ground INDOOR Dodgeball: learn how to aim and throw accurately at a moving target; eliminate opponents by throwing a ball; use tactics to win; work as a team; dodge balls effectively; find a space where it will be difficult to be hit; use agility, balance and co-ordination to move quickly; catch a ball without it touching another part of your body.
	Must: understand how to prepare the body for exercise; understand what fitness means; complete a range of circuit-based activities and understand the reasons for doing them; understand what happens to heart rate during exercise; complete a circuit that includes activities practised with balance and co-ordination. Should: help the others in their group by coaching them	Must: understand the value of aerobic exercise; learn how to measure heart rate and note any changes; perform aerobic activity to music; understand the value of aerobic exercise; practise and apply a sequence of step moves to the beat of the music; understand the value of step-based exercise and activities to music.	Must: learn how to aim and throw effectively at a moving target; eliminate opponents by throwing a ball at them; work as a team. Should: dodge balls effectively; use the space wisely in order to protect yourself from being hit; use agility, balance and co-ordination to move quickly.
	with the correct technique; understand how to correct other children safely without causing injury. Could: decide which moves could be put into the circuit each week; lead the workout in small groups.	Should: create a more complicated step routine, perhaps introducing people moving at different times (canon or unison).	Could: catch a ball without it touching another part of your body; use tactics to win.
	Dynamic Dance (Street): identify and practise the patterns and actions in a street dance style; observe and understand the style of street dance; learn some street	Could: perform the routine to an audience; be able to comment on own and others' performances. Gym Sequences: identify and practise gymnastic shapes and balances; identify and practise symmetrical	Fitness Frenzy: complete a circuit that includes different aerobic activities; perform and devise a sequence of movements to music; understand the value of aerobic exercise, devise a sequence of step-based activities to music; plan a personal programme;

dance moves and devise poses; demonstrate an awareness of the music's rhythm and phrasing when improvising; learn new moves that can be developed into a dance; to explore dance patterns and moving to the beat; add freestyle movements to the routine; create a dance that represents a street dance; know how to use expressive movements in dance to work with a partner to create a short dance phrase; create a dance as a group using any street dance moves; co-operate to adapt two routines and put them together; perform and analyse own and others' performance; perform in front of an audience; dance as a group in time to music in a street dance style.

Must: identify and practise the patterns and actions in a street dance style; observe and understand the style of street dance; learn some street dance moves and devise some poses; demonstrate an awareness of the music's rhythm and phrasing when improvising.

Should: learn new moves that can be developed into a dance; to explore dance patterns and moving to the beat; add freestyle movements to the routine.

Could: create a dance that represents a street dance; create a dance as a group; perform in front of an audience; perform and analyse own and others' performances.

OUTDOOR

<u>Football</u>: demonstrate dribbling the ball when running; pass the ball accurately to other players; maintain possession of the ball during a game-like situation; aim and shoot at a goal; demonstrate effective use of attacking and defending safely; be aware of the space and how it can be used effectively when passing a ball; know the positions and rules surrounding the game of football; play in a mini football competition.

Must: demonstrate dribbling the ball when running; pass the ball accurately to other players; maintain possession of the ball during a game-like situation; aim and shoot at and asymmetrical body shapes; construct sequences using balancing and linking movements; use counterbalances and incorporate them into a sequence of movements; perform movements in canon and in unison; perform and evaluate own and others' sequences.

Must: identify and practise gymnastic shapes and balances; identify and practise symmetrical and asymmetrical body shapes; construct sequences using balancing and linking movements; use counterbalances and incorporate them into a sequence of movements; perform movements in canon and in unison; perform and evaluate own and others' sequences.

Should: progress to more complicated gymnastic moves (teacher qualifications permitted of course.)

Could: safely identify how to intervene and help others when they are finding certain skills difficult.

OUTDOOR

Gymfit Circuits (Personal Programme): plan a personal programme; develop a personal programme that is suitable for ability, using the knowledge and understanding gained in previous fitness sessions.

Must: plan a personal programme; develop a personal programme that is suitable for ability, using the knowledge and understanding gained in previous fitness sessions.

Should: think carefully about the combination of exercise and food; make small changes to diet in order to evaluate any changes to fitness levels.

Could: offer support and guidance to others to help them complete their personal programme.

<u>Nimble Nets (Tennis)</u>: demonstrate and use the correct grip of the racket and understand how to get into the ready position; use good hand/eye co-ordination to be

perform others' sequences with control and balance; perform a sequence of moves at each station within a circuit with increased accuracy.

Must: complete a circuit that includes different aerobic activities; perform and devise a sequence of movements to music; understand the value of aerobic exercise, devise a sequence of step-based activities to music; plan a personal programme; perform others' sequences with control and balance; perform a sequence of moves at each station within a circuit with increased accuracy.

Should: evaluate own and others' performances each week and offer support and guidance when and if necessary.

Could: help someone to develop their personal programme in order to achieve determined goals.

OUTDOOR

Striking and Fielding (Rounders): throw and catch under pressure; to learn how to react quickly; demonstrate good agility and balance in order to throw accurately; use fielding skills to stop the ball effectively; learn batting control; know how to direct the ball; learn the role of backstop; play in a tournament and work as team, using tactics in order to beat another team; to assess and analyse others' strengths.

Must: throw and catch under pressure; to learn how to react quickly; demonstrate good agility and balance in order to throw accurately; use fielding skills to stop the ball effectively; learn batting control; know how to direct the ball; learn the role of backstop; play in a tournament and work as team, using tactics in order to beat another team; to assess and analyse others' strengths.

a goal; attack and defend effectively; be aware of the space and how it can be used effectively when passing a ball; know the positions and rules surrounding the game of football; play in a mini-competition.

Should: captain a team during a game in order to think about tactics; have the opportunity to make decisions about where to place people in different roles according to their strengths.

Could: start to understand the rules carefully enough in order to referee a small-sided game.

Invaders (Tag Rugby): understand the basic rules of tag rugby; know how to tag; work as a team, using ball-handling skills; improve spatial awareness; pass and carry a ball using balance and co-ordination; use skills learned to play a game of tag rugby; place a ball down if scoring a try; practise footwork and dodging skills when carrying the ball; reinforce catching and tagging skills and to apply them in a game; apply rules and skills learned to a game; play a mini tag rugby competition.

Must: understand the basic rules of tag rugby; know how to tag; work as a team, using ball-handling skills; improve spatial awareness; pass and carry a ball using balance and co-ordination; use skills learned to play a game of tag rugby; place a ball down if scoring a try; practise footwork and dodging skills when carrying the ball; reinforce catching and tagging skills and to apply them in a game; apply rules and skills learned to a game; play a mini tag rugby competition.

Should: be able to refine throwing and catching techniques carefully; show sportsmanship when playing a game.

Could: select people to play in equal teams in an intrahouse competition.

able to contact the shuttle with the face of the racket; understand how to serve the shuttle in order to start the game, recognise the difference between the low serve and the high serve; develop children's ability to perform and understand the 'overhead clear' shot and the impact that playing the overhead clear can have on winning points during game play.

Must: demonstrate and use the correct grip of the racket and understand how to get into the ready position; use good hand/eye co-ordination to be able to contact the shuttle with the face of the racket; understand how to serve the shuttle in order to start the game, recognise the difference between the low serve and the high serve; develop children's ability to perform and understand the 'overhead clear' shot and the impact that playing the overhead clear can have on winning points during game play.

Should: understand that the drop shot is an attacking shot, and why; know where the drop should be aided for, for it to be most productive, and why; understand how to use different shots to outwit an opponent in a game; develop knowledge, understanding and principles within a doubles game, including tactics and strategies used.

Could: use the tennis scoring system to play matches against opponents.

Should: have the opportunity to play a range of positions before developing skills in one particular area.

Could: become an all-round player by demonstrating proficiency in both fielding and batting.

Young Olympians (Athletics): investigate running styles and changes of speed; practise throwing with power and accuracy; throw safely and with understanding; demonstrate good running technique in a competitive situation; explore different footwork patterns; understand which technique is most effective when jumping for distance; utilise all the skills learned in this unit in a competitive situation.

Must: investigate running styles and changes of speed; practise throwing with power and accuracy; throw safely and with understanding; demonstrate good running technique in a competitive situation; explore different footwork patterns; understand which technique is most effective when jumping for distance; utilise all the skills learned in this unit in a competitive situation.

Should: be able to be realistic about your skills but celebrate others' successes; set goals which challenge ability.

Could: comment on others' performances; show mastery of the many areas surrounding athletics – throwing, jumping and running.

FRENCH

- To be familiar with classroom routines and instructional language, giving information appropriately in French eg. answering the register (Je suis presente / Il est absent.); stating the date (C'est le mardi 8 octobre.); describing the weather (Il fait gris.); asking for classroom objects.
- To learn classroom vocabulary including: 'un stylo, un crayon, une gomme, un taille-crayon, des ciseaux, un cahier, un sac'.
- To revise the question 'As tu? and the two possible responses: 'J'ai' and 'Je n'ai pas de'.
- To revise clothes vocabulary from Year 4 and learn the following new words: des chaussures, des chaussettes, un sweat, une cravate.
- To be able to express and justify opinions using phrases such as: 'j'aime, je n'aime pas, je n'aime pas le rouge, 'c'est laid, c'est moche, c'est super, c'est joli'.
- To revise vocabulary about family members; to extend descriptions of them using the terms: 'Il s'appelle, Il a dix ans, 'Il est, Il habite a'.
- To recap the adjectives: plus, sympa, intelligent, amusant.
- To revise the forms of the verb 'etre'.
- To learn the French words for some common occupations including: medecin, 'vendeur/vendeuse, serveur/serveuse, agent de police, professeur'.
- To practise and perform a song entitled 'Le divin enfant'.

Must: Answer the register in French accurately. Using a word-bank, recognise at least 5 classroom objects. Express likes and dislikes with regards to items of clothing. Learn at least three jobs in French. Listen to and join in singing a French song.

Should: Answer the register in French accurately.
Recognise at least eight classroom objects using a wordbank. Ask a partner to pass an object in French to reinforce vocabulary. Learn at least five jobs in French and begin to understand that some nouns for occupations change their spelling in relation to gender.
Sing a French song with accurate pronunciation.

- To learn words associated with where you live and the rooms in a house including: 'j'habite dans, j'habite a, une maison, un appartement. un salon, une salle a manger, une cuisine, une salle de bains, un garage, un balcon, un jardin, une chambre, une fenetre, une piscine'.
- To recap adjectives taught so far plus: 'superbe, magnifique, immense, deluxe, en haut, en bas'.
- To understand the gist of a short text recognising familiar vocabulary.
- To learn the prepositions: 'sur' and 'sous'.
- To develop conversational language: 'Repete s'il te plait, Repetez s'il vous plait, 'Qu'est-ce que c'est en français?'
- To learn some furniture words in French including: 'une chaise, un divan, une table, un frigo, une chaine hi-fi, une douche, un micr-ondes, un tapis, une lampe'.
- To revise days of the week and months of the year.

Must: Say where they live and whether they live in a flat or a house. With support, name at least three of the rooms in their house. With support, recognise at least three items of furniture in French.

Should: Say where they live and whether they live in a flat or a house. Independently name at least five rooms in their house. Learn at least five items of furniture in French and make up sentences based on the following model 'Il y a dans ma chambre'.

Could: Describe confidently what rooms they have in their house, using adjectives where possible. Learn at least eight items of furniture in French and make up sentences based on the following model 'II y a dans ma chambre'. Use simple prepositions to explain where each piece of furniture is within the room.

- To learn simple future tense: 'Je vais ...'

 PROJECT (to be completed over several weeks):
- To work with a partner to plan a holiday to France and describe it to an audience using words/phrases like: 'On va aller, on va partir, on va rester dans un hotel, on va rester dans un appartement, on va rester dans un gite, on va rester dans un camping, on va prendre'.
- To select a means of transport: revising the following vocabulary from Year 4: 'en bateau, en avion, en voiture, en train'.
- To find places to visit using the internet and add these to their plan using phrases such as: 'On va visiter, on va regarder, 'd'abord, plus tard'.
- To write a programme of activities for a week on holiday using the future tense and some of the following vocabulary: 'le muse, le chateau, la plage, le zoo, le jardin publique, la piscine, le centre commercial, le parc d'attractions, un match de'.
- To revise and memorise vocabulary and phrases learnt over the year.

Must: Say where they are planning to go to using the future tense and how they are planning to travel using a word-bank. With support. say what type of accommodation they intend to use. Find one example of a landmark/attraction they intend to visit during their stay.

Should: Using the future tense, with a word-bank, say where they are planning to go, how they are planning to travel, where they are planning to stay and at least three examples of what they are planning to do whilst they are there. List at least three items they will need to pack.

Could: Using a word-bank, describe the holiday they've planned accurately and in detail, providing a daily plan of the places they intend to visit and of the activities they intend doing. Describe how they intend getting there and where they will be staying. List at least five items they will need to pack.

PSHE	See separate plan	
	Could: Answer the register in French accurately. Know at least ten classroom objects. Use the terms 'J'ai' and 'Je n'ai pas' to explain which items they have and which they do not have. Use adjectives when expressing likes and dislikes with regards to items of clothing. Learn at least eight jobs in French. Speak audibly and clearly with good pronunciation when performing to an audience.	