## Geography

**What is so special about USA?**

**Geographical Enquiry**: Collect information about place and use it in a report. Find possible answers to their own geographical questions. Plan a journey to a place in another part of the world, taking account of distance and time.

**Physical Geography:** Explain why many cities of the world are situated by rivers? Explain how a location fits into its wider geographical location; with reference to physical features.

**Human Geography:** Explain why people are attracted to live by rivers. Explain how a location fits into its wider geographical location; with reference to human and economical features.

**Geographical Knowledge:** Locate and name the main countries in South America on a world map and atlas.

WOW: Locate the world's countries, using maps to focus on North America and concentrating on their key physical and human characteristics, countries and major cities.

- What would you ask the President of the USA?
- Why is New York one of the worlds most visited cities?
- Can you carry out your own research on one of the American states?
- Using the art of Andy Warhol, can you recreate his working using a famous American as your subject?
- Who were the original Americans?
- What can you find out about the sports Americans play?
- How can you create your own silent movie?
- What do you know about the climate of the USA?
- Reflection: Children to create a documentary which explains why they should visit the USA.

**RE**

- Caring for others animals and the environment
- Being fair and just

## Art

**Drawing:** Successfully use shading to create mood and feeling. Organise line, tone, shape and colour to represent figures and forms in movement. Show reflections. Explain why they have chosen specific materials to draw with.

**Painting**: Create all the colours they need. Create mood in their paintings. Express their emotions accurately through their painting and sketches.

**Knowledge:** Experiment with different styles which have artists have used. Learn about the work of others by looking at their work in books, the internet, visits to galleries and other sources of information.

**Sketch Books:** Keep notes in their sketch books as to how they might develop their work further. Use their sketch books to compare and discuss ideas with others.

# *Year 5*

# *Autumn 1*

## Computing

### We are game developers

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.

Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.

Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals .

**PE**

**Wall and Net Games**

## Science

### Could you be the next CSI investigator?

**NC:** Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets. Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. Give reasons based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. Demonstrate that dissolving, mixing and changes of state are reversible changes. Explain that some changes resukt in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

**Working Scientifically:** Carry out tests to answer questions such as "Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making black out curtains. Compare materials in order to make a switch circuit. Observe and compare the changes that take place eg when burning different materials or baking bread or cakes.

WOW: Burn a number of different materials, examine the remains and see whether the original item can be identified.

- Can you think of five materials that can be changed and reversed and five that cannot?
- How have scientists made use of changes to create materials that make our lives easier eg cling film?
- Which materials dissolve and evaporate and why can this sometimes be an important quality in those materials?
- How are reversible and irreversible changes important to forensic scientists?
- How could you solve a crime by using forensic evidence?
- What is bicarbonate of soda and what impact does it have on different materials?
- Using finger prints as well as hands and foot prints, can you create an interesting piece of art work that has interesting design features?
- Reflection: Create your own " Brainiac" and present it to Key Stage 1 children

**Music**

Cuckoo! Old Abram Brown (Britten)

## Geography

**Will you ever see the water you drink again?**

**Geographical Enquiry**: Choose the best way to collect information needed and decide the mose appropriate units of measure. Make careful measurements and use the data, use maps, aerial photos, plans and web resources to describe what a locality might be like.

**Challenge:** Define geographical questions to guide their research. Use a range of self-selected resources to answer questions.

**Physical Geography:** Give extended description of the physical features of different places around the world describe how some places are similar and others are different in relation to their human features.

**Human Geography:** Give an extended description of human features of different places around the world, describe how some places are similar and others are different in relation to their human features.

**Geographical Knowledge:** Recognise key symbols used on ordinance survey maps, name the largest desert in the world, identify and name the Tropics of Cancer and Capricorn as well as the Artic and Antarctic circles.

WOW: Show clips of extreme outcomes involving water, eg waves crashing, rainstorms, waterfalls, floods.

- Why is water a major necessity in any village, town or city?
- How does rainwater form in the first place?
- Why do some places go for long times without rain and others have too much rain?
- How is water used to help provide energy to many places?
- Can you create a moving toy that requires water to power it?
- What happens to the water in our home once it disappears down the sink?
- Which music is associated with water and can you create your own?
- Reflection: Can you put together a presentation that outlines the water cycle?

**PE**

**Dance**

## Design and Technology

Linked to Science topic.

- Use a range of information to inform their design.
- Use market research to inform plans.
- Work within constraints.
- Follow and refine their plan if necessary.
- Justify their plan to someone else.
- Consider culture and society in their design.
- Use tools and materials precisely.
- Change the way they are working if needed.
- Test and evaluate their final product.
- Justify why they have selected certain materials.
- Work within a budget.
- Ensure work is precise and accurate.
- Hide joints to improve the look of their product.

# *Year 5*

# *Autumn 2*

## Computing

### We are cryptographers

- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

**RE**

- Being Loyal and steadfast
- Being hopeful and visionary

## Science

### Can you feel the force?

**NC:** Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. Identify the effects of air resistance, water resistance and friction that act between moving surfaces. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.

**Working Scientifically:** Explore different ways to test an idea, choose the best way and give reasons. Vary one factor whilst keeping the others the same in an experiment and explain why they do this. Plan and carry out an investigation by controlling variables fairly and accurately. Make a prediction with reasons. Use information to help make a prediction. Use test results to make further predictions and set up further comparative tests. Explain a scientific idea and what evidence supports it. Present a report of their findings through writing, display and presentation.

**Challenging:** Make a prediction which links with other scientific knowledge. Identify key factors when planning a fair test. Explain how a scientist hasused their scientific understanding plus good ideas to have a breakthrough.

WOW: Find a hill to run up and down and consider the question "Why does it take longer to run up than down a hill?"

- What is friction and how does it affect moving objects?
- Why will a car always move faster than a boat?
- What is gravity and why is Isaac Newton linked to it?
- Can you design and make a parachute to help you understand more about air resistance?
- How do builders get heavy items onto the top of skyscrapers?
- Can you design, make and evaluate a structure that will propel a marble as far as possible?
- What helps you to climb hills on your bicycle?
- Reflection: Put together a presentation to show the advantages and disadvantages of friction in your life.

**Music**

**Water Music – linked to Geography**

## History

**NC:** Britain's settlements by Anglo-Saxons and Scots - Anglo-Saxon invasions; settlements; kingdoms; names and places; art and culture and Christian conversion

**Chronological Understanding:** Use dates and historical language in their work. Draw a timeline with different time periods outlined which show a range of information, such as, periods of history, when famous people lived etc. Use their mathematical skills to work exact time scales and differences as need be. **Challenge:** Create timelines which outline the development of specific features, such as medicine ;weaponry ;transport etc.

**Knowledge and Interpretation:** Describe historical events from different periods they are studying. Make comparisons between historical periods; explaining things that have changed and things which have stayed the same. Explain the role that Britain has had in spreading Christian values across the world. Appreciate that significant events in history have helped shape the country we have today. Demonstrate good understanding as to how crime and punishment has changed over the years. **Challenge:** Appreciate how plagues and other major events have created huge differences to the way medicines and health care was looked at.

**Historical Enquiry**: Test out a hypothesis in order to answer a question. Appreciate how historical artefacts have helped us understand more about British lives in the present and past. **Challenge:** Research the life of one person which has had an influence on the way Great Britain is divided into four separate countries.

**WOW**: This LC will start with a simulated dig with children having to work out what certain artefacts would have been used for.

- Who were the Anglo-Saxons and how did they influence our life today?
- How did the Anglo-Saxons bring law and order to Britain?
- What evidence do we have today that the Anglo-Saxons were ever here in the first place?
- Which Anglo-Saxon Christian symbols remain with us today?
- Can you create your own Anglo-Saxon art focusing on tessellations?
- Who were the famous Anglo-Saxons and why was Alfred so 'great'?
- Can you work as a group to create a model Anglo-Saxon settlement?
- Reflection: Using your model settlement, can you produce a filmed documentary about Anglo-Saxon life?

## RE

- Being open, honest and truthful
- Being silent and attentive to cultivating a sense for the sacred and transcendent

## Design Technology

**Developing, planning and communicating ideas:**
Think of a range of ideas after they have collected information? Do they take a user's view into account when designing? Can they produce a detailed step-by-step plan? Can they suggest some alternative plans and say what the good points and drawbacks are about each?

**Working with tools, equipment, materials and components:**
Can they explain why their finished product is going to be of good quality? Can they explain how their product will appeal to the audience? Can they use a range of tools and equipment expertly?

**Evaluating processes and products:** Do they keep checking that their design is the best it can be? Do they check whether anything could be improved? Can they evaluate appearance and function against the original criteria?

**Textiles:** Do they think what the user would want when choosing textiles? How have they made their product attractive and strong? Can they make up a prototype first? Can they use a range of joining techniques? **Stiff and flexible sheet material**: Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose?

**Mouldable materials:** Are they motivated enough to refine and improve their product?Do they persevere through different stages of the making process?

*Year 5*

*Spring 1*

## Computing

**We are artists**

- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

## PE

**Gymnastics**

## Science

**Will we ever send another human to the moon?**

NC: Describe the movement of the Earth and other planets relative to the Sun in the Solar System. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

**Working Scientifically:** Compare the time of day at different places on the Earth through internet links and direct communication; create simple models of the solar system; construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day; find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.

WOW: Visit to a planetarium or set up a telescope.

- Could we describe the Earth and the Sun as space cousins?
- If the Earth and Sun are cousins, is the Moon and young nephew?
- Can you explain why we have night and day?
- How can we appreciate the distances between and the sizes of the Sun, Earth and Moon?
- What can we learn about the solar system and the other planets in it?
- Who was Neil Armstrong and what would you ask him if you met him?
- How could you create a moon surface and create a moon buggy?
- Reflection: Could you create a simulated moon landing and film it?

## Music

**Livin' on a Prayer (Rock)**

## History

**NC:** Life in 14th Century England, including: Chilvalry; the Black Death; the peasants revolt. The later middle ages and the early modern period including Chaucer and the revival of learning; Wycliffe's Bible. Caxton and the introduction of the printing press; the Wars of the Roses and Warwick the Kingmaker

**Chronological Understanding:** Use dates and historical language in their work. Draw a timeline with different time periods outlined which show a range of information, such as, periods of history, when famous people lived etc. Use their mathematical skills to work exact time scales and differences as need be. **Challenge:** Create timelines which outline the development of specific features, such as medicine ;weaponry ;transport etc.

**Knowledge and Interpretation:** Describe historical events from different periods they are studying. Make comparisons between historical periods; explaining things that have changed and things which have stayed the same. Explain the role that Britain has had in spreading Christian values across the world. Appreciate that significant events in history have helped shape the country we have today. Demonstrate good understanding as to how crime and punishment has changed over the years. **Challenge:** Appreciate how plagues and other major events have created huge differences to the way medicines and health care was looked at.

**Historical Enquiry**: Test out a hypothesis in order to answer a question. Appreciate how historical artefacts have helped us understand more about British lives in the present and past. **Challenge:** Research the life of one person which has had an influence on the way Great Britain is divided into four separate countries.

**WOW**: Children to understand more about chess and relate the pieces to Medieval England.

- How brave and honest would you have to be to be a knight in Medieval England?
- What do we know about the code of Chivalry amongst knights?
- IS there any connection between "Ring a ring o'roses" and the Black Death?
- How differently did the rich and poor live in Medieval England?
- How important was religion in the middle ages?
- Can you create a board game based around knights and Medieval England?
- Have neighbours always fallen out?
- Reflection: Children to produce a power point presentation on the advantages of being alive in Medieval period.

## RE

- Particiapting and willing to lead
- Being modest and listening to others

## Design Technology

**Developing, planning and communicating ideas:**
Think of a range of ideas after they have collected information? Do they take a user's view into account when designing? Can they produce a detailed step-by-step plan? Can they suggest some alternative plans and say what the good points and drawbacks are about each?

**Working with tools, equipment, materials and components:**
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**Mouldable materials:** Are they motivated enough to refine and improve their product?Do they persevere through different stages of the making process?

*Year 5*

*Spring 2*

## Computing

### We are developers

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

## Science

### Will we ever send another human to the moon?

NC: Describe the movement of the Earth and other planets relative to the Sun in the Solar System. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

**Working Scientifically:** Compare the time of day at different places on the Earth through internet links and direct communication; create simple models of the solar system; construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day; find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.

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- What can we learn about the solar system and the other planets in it?
- Who was Neil Armstrong and what would you ask him if you met him?
- How could you create a moon surface and create a moon buggy?
- Reflection: Could you create a simulated moon landing and film it?

## Music

Mun Married New Yr Carol (Britten)

## PE

**Striking and Fielding Games**

## History

**NC:** Britain's settlements by Anglo-Saxons and Scots - Anglo-Saxon invasions; settlements; kingdoms; names and places; art and culture and Christian conversion

**Chronological Understanding:** Use dates and historical language in their work. Draw a timeline with different time periods outlined which show a range of information, such as, periods of history, when famous people lived etc. Use their mathematical skills to work exact time scales and differences as need be. **Challenge:** Create timelines which outline the development of specific features, such as medicine ;weaponry ;transport etc.

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**Historical Enquiry**: Test out a hypothesis in order to answer a question. Appreciate how historical artefacts have helped us understand more about British lives in the present and past. **Challenge:** Research the life of one person which has had an influence on the way Great Britain is divided into four separate countries.

**Why should gunpowder, treason and plot never be forgotten**?

WOW: Consider modern day plots to overthrow governments or monarchies and debate some of the issues.

- Who were the roundheads and the cavaliers?
- Was Oliver Cromwell right to stop the monarchy?
- Why was the execution of Charles I a major event in British History?
- Why do you think the monarchy was restored after a short while?
- Why do some people think that the Great Fire was one of the best things that happened to London?
- Can you work with clay tiles to recreate the Great Fire of London?
- Who was Samuel Pepys and would he have been a modern day blogger?
- Reflection: Set up a Parliamentary debate for and against Cromwell, film it and the show parents.

## RE

- **Being temperate exercising self-discipline and serene contentment.**

## Design Technology

**Developing, planning and communicating ideas:**
Think of a range of ideas after they have collected information? Do they take a user's view into account when designing? Can they produce a detailed step-by-step plan? Can they suggest some alternative plans and say what the good points and drawbacks are about each?

**Working with tools, equipment, materials and components:**
Can they explain why their finished product is going to be of good quality? Can they explain how their product will appeal to the audience? Can they use a range of tools and equipment expertly?

**Evaluating processes and products:** Do they keep checking that their design is the best it can be? Do they check whether anything could be improved? Can they evaluate appearance and function against the original criteria?

**Textiles:** Do they think what the user would want when choosing textiles? How have they made their product attractive and strong? Can they make up a prototype first? Can they use a range of joining techniques? **Stiff and flexible sheet material**: Are their measurements accurate enough to ensure that everything is precise? How have they ensured that their product is strong and fit for purpose?

**Mouldable materials:** Are they motivated enough to refine and improve their product?Do they persevere through different stages of the making process?

*Year 5*

*Summer 1*

## Computing
## We are bloggers

Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and
presenting data and information.
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
... be discerning in evaluating digital content.

## PE
**Invasion Games**

## Science
**Do all animals and plants start life as an egg?**

**NC: Living things and their habitats:** describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird. Describe the life processes of reproduction in some plants and animals.

**Working Scientifically:** Observe and compare the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), ask pertinent questions and suggest reasons of similarities and differences.

WOW: Show clips of film of animals hunting each other and talk about life cycles.

- Can you work out which animals depend on each other for survival?
- What would you as David Attenborough or Jane Goodall of you met them?
- How can you create a presentation to show the life cycle of a butterfly or a frog?
- Do all animals start life as an egg?
- How do humans change as they grow?
- Can you recreate the lifecycle of a butterfly in using music and dance?
- How can you create art from the environment ?
- Reflection: Children to create a poster of a chosen animal or plant showing its life cycle.

NB Please see PHSE Co-ordinator for support with item 5

## Music

**Hip Hop Course**

## History

**NCA study of an aspect or theme in British History that extends pupils chronology beyond 1066; Hitler's invasion of Europe and its impact on Britain.**

**Chronological Understanding:** Use dates and historical language in their work. Draw a timeline with different time periods outlined which show a range of information, such as, periods of history, when famous people lived etc. Use their mathematical skills to work exact time scales and differences as need be. **Challenge:** Create timelines which outline the development of specific features, such as events in WW2

**Knowledge and Interpretation:** Describe historical events from different periods they are studying. Make comparisons between historical periods; explaining things that have changed and things which have stayed the same. Appreciate that significant events in history have helped shape the country we have today. Demonstrate good understanding as to how crime and punishment has changed over the years. **Challenge:** Name the major leaders in Europe and America during WW2?

**Historical Enquiry**: Test out a hypothesis in order to answer a question. Appreciate how historical artefacts have helped us understand more about British lives in the present and past. **Challenge:** Research the life of one person which has had an influence on the way the war ended.

**How could Hitler have convinced a nation like Germany to follow him?**

**WOW:** Start with the famous radio broadcast on a Sunday morning that announced to Britain that we were at war with Germany.

- Why did WW2 start and what part did Hitler have in it?
- Why did the Jewish Nation suffer as a result of Hitler coming to power?
- What can we learn about this period from the Anne Frank Diaries?
- What happened in Munich in 1938 and why did Britain feel betrayed by Hitler?
- Why was the Battle of Britain significant in WW2?
- Who was Winston Churchill and what part did he play in the war?
- How have different European artists captured the horror of the war?
- Reflection: Using photographic images sources from the internet put together your story as though you lived during the period.

## RE

- **Being Thankful**
- **Being Imaginative and explorative**

## ART

**Drawing:** Successfully use shading to create mood and feeling. Organise line, tone, shape and colour to represent figures and forms in movement. Show reflections. Explain why they have chosen specific materials to draw with.

**Painting**: Create all the colours they need. Create mood in their paintings. Express their emotions accurately through their painting and sketches.

**Knowledge:** Experiment with different styles which have artists have used. Learn about the work of others by looking at their work in books, the internet, visits to galleries and other sources of information.

**Sketch Books:** Keep notes in their sketch books as to how they might develop their work further. Use their sketch books to compare and discuss ideas with others.

# *Year 5*

# *Summer 2*

## Computing
## We Are Architects

Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

## PE

**Athletics**

## Science

**Do all animals and plants start life as an egg?**

**NC: Living things and their habitats:** describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird. Describe the life processes of reproduction in some plants and animals.

**Working Scientifically:** Observe and compare the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), ask pertinent questions and suggest reasons of similarities and differences.

WOW: Show clips of film of animals hunting each other and talk about life cycles.

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- How do humans change as they grow?
- Can you recreate the lifecycle of a butterfly in using music and dance?
- How can you create art from the environment?
- Reflection: Children to create a poster of a chosen animal or plant showing its life cycle.

NB Please see PHSE Co-ordinator for support with item 5

## Music

**Hip Hop Course**

**Composition**