

YEAR 4 KEY SKILLS, KNOWLEDGE & UNDERSTANDING CURRICULUM COVERAGE 2021-2022

SCIENCE

Year 3 Working Scientifically

& 4

- Begin to raise their own relevant questions about the world around them
- Should be given a range of scientific experiences including different types of science enquiries to answer questions
- · Can make and record a prediction before testing using scientific vocabulary and simple reasons.
- Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions and which information needs to be collected
- Set up simple practical enquiries, comparative and fair tests
- Understands what a simple fair test is, recognise what a simple fair test is, when it is necessary and how it is fair.
- Talk about criteria for grouping, sorting and classifying; and use simple keys
- Use secondary sources and recognise when and how they might help them to answer questions that cannot be answered through practical investigations
- With support helps to make decisions about what systematic and careful observations to make and how long to make them for and the type of simple equipment that might be used.
- With support, begin to look for patterns and relationships (some naturally occurring) and decide what data to collect to identify them
- Take fair and accurate measurements using standard units and a range of equipment (including thermometers and data loggers) appropriately.
- Collect and record data from their own observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams, keys
- · With support, begin to make decisions about how to analyse this data
- With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions from their findings
- Use relevant simple scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences (including oral and written explanations, ICT, displays or presentations of results and conclusions)
- With support discusses the success of their working methods and suggests ways of improving what they have already done.

Year 4 | Animals and Humans

- Identify the main parts of the digestive system in humans and their functions
- Describe and explain the process of digestion
- Identify the different types of teeth in humans and their functions
- Compare the teeth of carnivores and herbivores,
- Identify what damages teeth and how to look after them

Materials- states of matter

- Compare and group materials together, according to whether they are solid, liquid or gas
- Observe materials changing state and describe the changes when they are heated or cooled
- Measure or research the temperature at which changes in state happen
- Explore and observe evaporation and condensation
- Identify the parts condensation and evaporation play in the water cycle

Living Things and Their Habitats

- Identify that animals can be grouped in a variety of different ways (including by their actual groups mammals, fish, amphibians, birds and reptiles, vertebrates and invertebrate, their habitats and what they eat)
- Explore and use classification keys to identify and group animals (primarily in the local environment)
- Identify that plants can be grouped in different ways (e.g. flowering and non-flowering, in the local environment or wider environment, by colour, can it be eaten etc)
- Explore and use classification keys to identify and group plants (primarily in the local environment)
- Identify how human action can change environments and impact living things (positive and negative)

Construct and interpret food chains for different habitats (producer, consumer, predator, prey)

Sound

- Identify and compare sounds and how they are made
- Explain what happens to sound as it travels to our ear.
- Find patterns in the volume of a sound and the strength of vibrations that produced it
- Recognise a relationship between volume and distance from the sound source
- Find patterns in the pitch of a sound and the features of an object that produce it

Electricity

- Identify common appliances that run on electricity
- Construct a simple electrical circuit, identifying and naming its basic parts
- · Predict and identify whether or not a lamp will light in simple circuit
- Identify some common conductors and insulators
- · Recognise that a switch opens and closes a circuit
- Explain the importance of electrical safety

GEOGRAPHY

WHOLE SCHOOL GEOGRAPHY OVERVIEW

When teaching each geographical area, the five key geographical skills must be taught for each one.

- Map skills
- Fieldwork
- Building a sense of place (physical and human features)
- Enquiry/Using sources
- Environment

For each location children will learn about and compare some or all of the following geographical themes.

- Land use / settlement
- Weather and climate
- Lifestyle and culture
- Sustainability and environment
- Trade/economy (KS2)

THE FIRST LESSON IN ANY TOPIC MUST SET THE CONTEXT BY FOCUSING ON IDENTIFYING WHERE IN THE WORLD THE PLACE IS, WHAT CONTINENT IT IS ON, WHAT SEAS SURROUND IT, WHAT THE CAPITAL AND MAJOR CITIES ARE AND WHAT THE CULTURE IS LIKE IN THAT LOCATION.

Year 4

Autumn

China – More than a billion people live there – it must be pretty good there?

Spring

Italy - Where did the Romans come from?

Summer

Newcastle upon Tyne (rivers and cities) - Why are there so many bridges over the Tyne?

Year 4 Objectives should be taught and revisited in each topic.

Sense of Place

- Suggest areas on a world map that could have similar climates and justify reasoning.
- Recognise how some places in the world are linked to others.
- Identify and describe physical features and explain how they affect settlement locations (rivers, mountains etc.)
- Identify and describe the human features of an area, including trade.
- Map land use in a location.
- Make comparisons between places, describing the human, physical and climate features.
- Use maps to locate and name some counties and major cities in the UK.
- Use maps to locate and aname some countries and cpital cities in Europe.

Map Skills

- Use and follow directions using 8 compass points.
- Use pairs of co-ordinates to identify features on a map.
- Use OS maps, understanding common symbols (see separate document)
- Use a map to identify complex features (bus stop, church, phone box etc)
- Use maps with a variety of scales to locate places.

Fieldwork

- Collect and record evidence about a location and present findings in a suitable form.
- Collect data about a location and begin to look for patterns in their results.
- Compare findings on a location with other locations and draw simple conclusions (human and physical features).
- Use historical maps as evidence when investigating a local area.
- Create a simple sketch map of a location.

Geographical Enquiry/Using Sources

- Use satellite images, digital images and aerial photos to investigate a locality.
- Offer plausible explanations for the location of some human features.
- Ask and respond to geographical questions about a locality, offering own ideas and observations.

Environment

- Understand that humans have had negative impact on the environment deforestation, pollution, plastics.
- Suggest ways to help save the environment walk/cycle, use recycled items, reuse items, FSC products.
- Investigate the effect of human activity on other species of animals.
- Investigate some different ways that sustainability can be achieved.

HISTORY

WHOLE SCHOOL HISTORY OVERVIEW

When teaching each historical era, the 7 key history skills must be taught for each one.

- Constructing the Past
- Sequencing the Past/Chronology
- Continuity and Change
- Cause and Effect
- Significance and Interpretation
- Historical Enquiry
- Using Sources as Evidence

In each era children will learn about and compare some or all of the following historical themes

- Achievements (scientific and cultural)
- Housing and architecture
- Society (politics and class)
- Food Farming and Trade
- Entertainment
- Beliefs
- Weapons and warfare

THE FIRST LESSON IN ANY TOPIC MUST SET THE CONTEXT FOR THAT HISTORICAL ERA – HOW DOES IT COMPARE TO PREVIOUS TOPICS LEARNT, WHAT WAS LIFELIKE IN THE PLACE BEFORE THIS ERA BEGAN ETC.

Year 4

Has Corona virus ever happened before?

Autumn

The Great Plague (1665 – 1666) Newcastle (1636) and advancements in medicine

- Achievements (scientific and cultural) Medicine (miasmatic theory bad air) and sanitation, housing – town planning (link to Great Fire)
- **Housing and architecture** Cramped, slum housing, lack of sanitation. Red crosses on the doors, quarantine.
- Society (politics and class) Plague 'doctors', so-called 'nurses' miasmatic theory (bad air), changes to daily life (grass!) Effects on the wealthy and poor (wealthy often fled cities to the safer countryside).
- Food Farming and Trade Trade limitations
- Entertainment Ring a ring of roses

Constructing the Past

- Understand what life in medieval Britain would have been like and how this contributed to the spread of the plague housing, lack of sanitation etc.
- Understand the terms medieval and dark ages and place into context compared to other eras studied.

Sequencing the Past/Chronology

- Begin to use scaled timelines Sequence the spread of Black Death across Europe and compare to spread of Corona Virus across world. Are there any similarities, differences? – masks, lockdowns, punishment of the lord?
- Use terminology of centuries to order and sequence events/people, rounding up to the nearest century.

Continuity and Change

- Compare and contrast the different responses to the Black Death and the Corona Virus –
 Remedies, medicine, religion, cultural response, lockdowns, populations etc.
- Identify how changes in history affected people's lives how lives changed for medieval Britons due to the plague.

Cause and Effect

- Identify the cause of specific events in history Plague in Britain and its spread across medieval Europe rats, sanitation etc.
- Consider the effect on historical events on life then and now.- population of Britain and Europe after the plague new laws, changes to ways of life. Identify the effect of the black death symptoms, attempted cures etc.
- Consider the legacy left behind from past eras/events Explore the significance of the outbreak –
 death rates, population changes etc. Plague had happened before and after but never this badly.

Significance and Interpretation

- Consider the significance different eras the Plague when it hit Newcastle and Gateshead in a following wave.
- Investigate alternative interpretations of the past.

Historical Enquiry

- Investigate a person or event, using a range of sources to answer questions Eyam?
- Use a range of evidence to build up a picture of a past event.

Using Sources as Evidence

- Evaluate the usefulness and reliability of different sources.
- Compare contrasting sources of evidence and explain why they may contradict each other.

Year 4

What have the Roman's ever done for us?

Spring

The Roman Empire and its impact on Britain (not Roman Empire as a whole)

- Achievements (scientific and cultural) sanitation, public order, irrigation, roads, a fresh water system.
- Housing and architecture Building with stone Hadrian's Wall. Spas, Aqueducts, viaducts, Fort towns
- **Society (politics and class)** Emperors, slaves, gladiators. Why were they successful? Different attitudes of different tribes towards the Romans.
- Food Farming and Trade Growth of empire coins with emperor's heads.
- Entertainment Gladiators
- Beliefs Polytheistic
- **Weapons and warfare** Army life. Rebellion Boudicca/ different perspectives of Boudicca. Salt and Ale. Tortoise formation. Army structure and roles.

Constructing the Past

- Build a coherent knowledge of British history from the Iron Age to Roman Britain, considering what life was like in Celtic Britain prior to the Roman Invasion.
- Understand where the Roman Empire fits in wider chronological context.

Sequencing the Past/Chronology

- Begin to use scaled timelines to understand intervals between events and their durations.
- Deepen understanding of concurrent civilisations around the world and their impact on future civilisations.
- Use the terminology of centuries.

Continuity and Change

- Identify the changes brought about due to the Roman conquest public order, roads, architecture, irrigation, water systems, entertainment, sanitation, engineering etc.
- Identify the continuities throughout the period were all Britons affected in the same way? What
 features of life remained.

Cause and Effect

- Identify the causes of specific events and the affect they had on life in the UK -Identify the reasons for the invasion of Britain by the Romans and the impact that it had on the lives of people living here, both then and now. How did it advance British society?
- Identify the causes of specific events and the affect they had on life in the UK Identify the reasons for the Roman abandonment of Britain and the impact on life in the country following their exit.
- Consider the legacy left behind by the past eras.

Significance and Interpretation

- Identify the significance of historical individuals why Boudicca is such a significant individual for both British and Roman British history what was her response to the Roman invasion? How successful was it? (primary resources)
- Consider alternative interpretations of the past different responses to the Roman invasion Cartimandua.
- Understand how decisions and events have consequences, both positive and negative.

Historical Enquiry

- Investigate a significant person in history Roman emperor Hadrian would be appropriate Why did he build a wall?
- Use a range of sources of evidence to build a picture of events in the past...

Using Sources as Evidence

- Evaluate the usefulness and reliability of different sources Boudicca, Tacitus and Cassius Dio
- Compare contrasting sources of information and explain why they contradict each other

Year 4

What on Earth caused thousands of children to be taken away from their parents and sent to the countryside?

Summer

A Study of an aspect in British history, beyond 1066 – Life in Britain during the Blitz. You **MUST** also consider life in Germany for civilians – The British committed just as many atrocities as the Nazis, just look at Dresden.

- Achievements (scientific and cultural). Planning and innovations.
- Society (politics and class) United effort beginning of end of class system linked to women's rights and WW1. Nazis and our democracy. Evacuations
- Food Farming and Trade Land Army, rations
- Entertainment Keeping spirits up link to WW1
- Weapons and warfare Technological advancements, bombings, Evacuations.

Constructing the Past

- Build a coherent knowledge on the build up to, and outbreak of WWII
- Understand what life in Britain was like pre-war and during the early years of the war bombings, evacuations, gas masks, losing loved ones, Churchill etc.

Sequencing the Past/Chronology

• Sequence key events from WWII on a scaled timeline, giving reasons for their order.

Continuity and Change

- Identify how changes in history affected people's lives how people's lives changed throughout the war and in the aftermath soldiers, children, women, society as a whole, poor people, rich people,
- Compare changes in history with other eras Consider how warfare in WW2 was different to warfare in previous areas studied – tactics, weaponry, casualties, technology etc. Were there any similarities?
- Investigate the similarities and differences between life for civilians in both the UK and Germany.

Cause and Effect

- Identify the cause of specific events in history reasons for the invasion of Britain by the Germans and the impact that it had on Britain identify the effects on following civilisations and today
- Identify the cause of specific events and the affect they had on life in Britain Why did Hitler order the Blitz? How did it change life for Brits, particularly in London?

Significance and Interpretation

- Identify the significance of historical events -why was WWII different to previous wars? Why is it remembered so much more than other wars?
- Consider alternative interpretations of the past views of German civilians.

Historical Enquiry

- Investigate a significant event in history using a range of sources the tactics and innovations used on D-day (Hobarts funnies) Children would probably be intrigued by them.
- Use evidence to build up a picture of a past event.

Using Sources as Evidence

 Compare contrasting sources of information and explain why they may contradict each other - how and why propaganda was used and the effect it had on the reliability of primary sources from the time. How might secondary sources written later on be more reliable and unbiased?

ICT

Year 4 **Programming**

- Write programs to create simple animations and patterns.
- Make turns by different degrees.
- Predict the outcome of my instructions and programs.
- Use inputs and outputs when writing simple programs.
- Use a loop within my programs.
- Control simple devices by giving instructions.
- Explore the effects of changing variables in a simulation and when controlling things.

Handling Data

- A simple spreadsheet model, enter data, highlight it and make clearly labelled graphs.
- Use and recognise 'cells', 'rows' and 'columns' effectively when handling data.
- Sort and search a database to answer simple questions.
- Sort and classify information on screen by more than two criteria (Venn diagram).

E-communication

- Appreciate the benefits of ICT to send messages and to communicate.
- Contribute to a class blog.

Key Skills

- Use formatting such as bullet points or numbers, auto shapes and text boxes to reposition and organise my work.
- Right click for suggested spellings when correcting my work.
- Add borders and alter shading and colour fill on auto shapes, word art and excel cells.
- Insert page numbers.
- Recognise the need for a good page design.
- With help, reformat text boxes and images to make them fit for purpose (square, tight, in front, behind) and allow overlapping and rotation.
- Choose the most appropriate page layout and document type for presenting my work.
- Begin to understand the difference between save and save as.

Multimedia Production

- Review and delete unwanted images.
- Combine text, images and sounds in different programs to target a familiar audience.
- Manipulate sound when using recording software by altering the pitch and tempo.
- Know that sounds exist in different formats.
- Capture images (and other media) using different methods.
- Create a multimedia presentation that teaches others something that I have learnt.
- Review, adds to and edit my work to make my message clearer.

Using the internet

- Use a search engine to find a specific website.
- Decide which text to copy and paste into a document.
- Use tabbed browsing to open two or more pages.
- Consider who wrote the information I find and how this affects if I trust it or not (bias).

E-safety

- Know that websites sometimes include pop-ups that take them away from the main site, including the use
 of advertising.
- Understand that the internet contains fact, fiction and opinion and begin to distinguish between them.
- Understand the need for rules to keep me safe when using technology of when online and can follow my own and the school's rules.
- Understand the need to keep personal information and recognise that everything I put online can be seen and used by others and cannot be deleted.
- Understand the need for caution when using an internet search and what to do if I find something bad.
- Recognise that cyber bullying is unacceptable and the consequences of taking apart in it.
- Know how to report an incident of cyber bullying.
- Know the difference between online communication tools used in school and those used at home.

MUSIC

Year 4 **Performing**

- Perform a simple part rhythmically.
- Sing songs from memory with accurate pitch.
- Improvise using repeated patterns.

Composing

- •Recognise and use semibreves.
- •Recognise and use minims.
- •Use notations to record and interpret sequences of pitches.
- •Use standard notation.
- •Use notations to record compositions in a small group or on my own.
- Use my notation in a performance.

Appraising

- •Explain the place of silence and say what effect it has.
- •Identify the character of a piece of music.
- •Describe and identify the different purposes of music.
- •Listen to and recognise the work of Beethoven and Mozart.
- Identify with the style of work of Beethoven, Mozart and Elgar.



Year 3 & 4 Listening & Responding

- Understand short passages made up of familiar language.
- Understand instructions, messages and dialogues within short passages.
- Identify and note the main points and give a personal response on a passage.

Speaking

- Have a short conversation saying 3-4 things.
- Use short phrases to give a personal response.
- Name and describe people, a place and an object.
- Start to speak using a full sentence.

Reading & Responding

- Read and understand short texts using familiar language.
- Identify and explain the main points in a short passage.
- Read a passage independently.
- Use a bilingual dictionary or glossary to look up new words.

Writing

- Write phrases from memory
- Write 2-3 short sentences on <a familiar topic>.
- Write what I like and dislike about <a familiar topic>.

ART

Year 4 **Drawing**

- Show facial expressions and body language in my sketches.
- Identify and draw simple objects and use marks and lines to produce texture.
- Organise line, tone, shape and colour to represent figures and forms in movement.
- Explain why I have chosen specific materials to draw with.

Painting

- Create all the colours I need.
- Create mood in my paintings.
- Use shading to create mood and feeling.

Printing

- Print using at least four colours.
- · Create an accurate print design.
- Print onto different materials.

Textiles/3D

- Experiment with and combine materials and processes to design and make 3D form.
- Sculpt clay and other mouldable materials.
- Use early textile and sewing skills as part of a project.

Collage

- Use ceramic mosaic.
- · Combine visual and tactile qualities.

Sketchbooks

- Use my sketch books to express my feelings about various subjects and outline likes and dislikes.
- Produce a montage all about themselves.
- Use my sketch books to adapt and improve my original ideas.
- Keep notes about the purpose of my work in my sketch books.

Use of it

Combine graphics and text based on my research.

Knowledge

- Experiment with different styles which artists have used.
- Explain features of art from other periods of history.
- Know how different artists developed their specific techniques.

DT

Year 4 Developing, planning & communicating ideas

- Come up with at least one idea about how to create my product.
- Take account of the ideas of others when designing.
- Produce a plan and explain it to others.
- Suggest some improvements and say what was good and not so good about my original design.

Evaluating processes & products

- Think of how I will check if my design is successful.
- Explain how I can improve my original design.
- Evaluate my product, thinking of both appearance and the way it works.
- Consider how I could have made my idea better.

Working with tools, equipment, materials & components

- Tell if my finished product is going to be good quality.
- Conscience of the need to produce something that will be liked by others.
- Show a good level of expertise when using a range of tools and equipment.
- Work at my product even though my original idea might not have worked.

Cooking & Nutrition

- Know what to do to be hygienic and safe.
- Think about what I can do to present my product in an interesting way.
- Choose the right ingredients for a product.
- Use equipment safely.
- Make sure that my product looks attractive.
- Describe how my combined ingredients come together.

Electrical & mechanical components

- Say how I have altered my product after checking it.
- · Confidently try out new and different ideas

Use of materials

- Measure carefully so as to make sure I have not made mistakes.
- Say how I have attempted to make my product strong.

Mouldable materials

- Use a range of advanced techniques to shape and mould.
- Use finishing techniques, showing an awareness of audience.

RE

Year 4 | Knowledge & Understanding of Religion

- Compare beliefs and features of two religions, noting similarities and differences.
- Make links between beliefs and sources, including religious stories and sacred texts.
- Identify how religion is expressed in different ways.
- Understand what Christians believe about God

Critical Thinking

• Give plausible reasons to support their views in response to religious materials.

Personal Reflection

• Understand that not all people think, feel and believe the same as they do.

PSHCE

Year 4 | Me and My Relationships

- Describe how I can tell a person is feeling worried just by their body language.
- Explain the difference between teasing and bullying.
- Describe what to do if someone was upsetting me or if I was being bullied.
- Give an example of how to say 'no' to someone, without being aggressive (mean or unkind).
- Explain what being 'assertive' means and give a few examples of ways of being assertive.

Valuing Difference

- Describe ways that people are different besides how they look, including religious or cultural differences.
- Recognise that people are labelled (stereotyped) and that these labels are often wrong
- Explain why it's important to challenge stereotypes that might be applied to me or others.
- Explain how stereotyping can limit some people's thinking about what they can do or become (aspirations) and why it's important for us to challenge this.

Keeping Myself Safe

- Give examples of risky situations and what can make them less risky.
- Give examples of people or things that might influence someone to take risks (e.g. friends, peers, media, celebrities)
- Understand that people have choices about whether they take risks.
- Recognise the risks of smoking or drinking alcohol on a person's body and give reasons for why most people choose not to smoke, or drink too much alcohol.
- Understand the term 'influence' and be aware that things around me (friends, people in the media etc.) could influence my behaviour and decisions.
- Give examples of positive and negative influences, including things that could influence me when I am making decisions.

Rights and Responsibilities

- Understand that I can make a difference in relation to different things such as the environment, looking after people (including friends) and give an example of one of these.
- Explain how a 'bystander' I can have a positive effect on negative behaviour they witness (see happening) by working together to stop or change that behaviour.
- Explain that things I see on TV, in newspapers or their websites might not give all the facts or might be biased (give one set of views, not them all).
- Explain how these reports (TV, newspapers or their websites) can give messages that might influence how people think about things
- Explain how money is a limited resource and we have choices and decisions to make about how to spend it, give examples of these decisions and how they might relate to me.

Being my Best

- Give examples of different things that I do already that help to me keep healthy.
- Explain the benefits of looking after myself both now and in the future.
- Give examples of some of the things that I do already to help look after my environment.
- Explain the benefits of looking after my environment both now and in the future, and for future generations.

Growing and Changing

- Label some parts of the body that both boys and girls have.
- Label some parts of the body that only boys have and only girls have.
- Describe how some parts of the body change during puberty.
- Name some of the difficult feelings someone might have as they go through puberty.
- Explain some of the reasons why a teenager might have these difficult feelings (e.g. conflict with parents).
- Know who can get married and how old they have to be and I explain why people get married.