

Year 4 Summer Term Skills and Knowledge

At Moorside Primary School our approach to our teaching and learning is through a skill based curriculum. Below are the subjects and skills being taught in the summer term:

Science – States of matter

Essential skills and knowledge

- To compare and group materials together, according to whether they are solids, liquids or gases
- To observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

Communication skills

- To ask relevant questions and use different types of scientific enquiries to answer them gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

Working together Collaborative skills

- To direct the work of others during an investigation
- To work in a small group to collect data
- To offer own ideas to help people think more deeply

Problem solving

- To use a range of processes to separate a mixture of different sized solids
- To set up an investigation to test what happens e.g. when a material is melted or cooled
- To use the results of an investigation to make predictions

Application of number

- To read scales on a variety of equipment including force meters, weighing scales and thermometers
- To identify and group materials into solids, liquids and gases
- With support, to record on line graphs
- To construct graphs and decide on the appropriate intervals

Information Technology

- To use sensing equipment to make observations and readings of temperature
- To use ICT to explain hypothesis, methods and results
- To know that a database can be searched by field
- To use a data logger to collect data

Computing - programming

Programming and making things work with understanding

- To design and write programs that accomplish specific goals
- To design, write and debug programs that accomplish specific goals
- To design and write programs including controlling or simulating physical systems
- To solve problems by decomposing them into smaller parts
- To use sequence, selection and repetition in program
- To work with variables and various forms of input
- To use logical reasoning to explain how some simple algorithms work
- To detect and correct errors in algorithms and programs
- To create and edit procedures
- To evaluate and improve programs
- To break a problem down into smaller parts in order to build a procedure/program
- To search databases
- To recognise terms e.g. cell, row and column
- To format text towards a specific purpose
- To use word count, bullets, numbering
- To present information using a range of software
- To use ICT across a range of subjects

- To order and organise text using a word processing program
- To use a range of resources for programming
- To evaluate own work and modify accordingly
- To use appropriate tools to present data
- To pose questions and collect specific data
- To differentiate storage areas for video, images, sound and text
- To use a folder structure on a range of storage
- To use control commands to draw shapes
- To add animation to presentation
- To use ICT to control events and sense physical data e.g. in a weather program

Network and internet

- To use a range of search techniques in order to acquire information
- To evaluate results and information presented
- To understand that information found online may not be accurate

Keeping safe

- To use technology safely and respectfully
- To keep personal information safe by hiding identity
- To understand the procedures for reporting online incidents, share rules with others
- To recognize immediately when online safety is compromised and know how to get support

Physical Education

Outdoor/ Adventure – developing skills

- To recognise where I am on a plan or a diagram
- To travel successfully to and from objects and locations on the grounds
- To recognise symbols and pictures and relate them to a diagram

Outdoor/ Adventure – making and applying

- To understand the purpose of an activity and plan actions so they are successful
- To choose simple approaches to solve problems I am set
- To work cooperatively with others on tasks

Outdoor/ Adventure – physical and mental

- To recognise the physical demands of the tasks and challenges
- To discuss how best to manage these demands
- To share strategies developed for managing demands

Outdoor/ Adventure – evaluate and improve

- To describe my own and others' roles in activities
- To identify what was completed well and what different approaches could have been used

Athletics – developing skills

- To choose and sustain an appropriate running pace
- To run with increasing control and co-ordination
- To aim accurately at a target
- To reach a target using all three throws
- To throw with increasing control and co-ordination
- To pass a baton

Athletics – physical and mental

- To identify a range of warm-up activities
- To identify how activities can improve strength, power or stamina
- To explain how the above can help performance in other types of activity

Athletics – evaluate and improve

- To be clear about what is achieved and recognize the importance of planning and thinking throughout the activity
- To identify what has been done well and adapt plans to be more efficient when facing similar challenges

History – Ancient Greece

Historical knowledge (constructing the past and sequencing the past)

- To describe some features, events, people and themes from the past
- To sequence a few events, objects or pieces of information on a timeline
- To place events, objects, themes and people from my history topic on a timeline
- To understand the differences in social, religious, political and cultural history

- To talk or write about the past, including some detail, to show that connections can be made with features of other periods studied
- To know similarities and differences within a period of time such as the lives of the rich and poor

History concepts (change and development, cause and effect, significance and interpretations)

- To use some historical period terms
- To point out some similarities and some differences between the ways of life different people living at the time I am learning about
- To describe some similarities and differences between people (rich and poor), events and beliefs in the period of history studied
- To show changes in a time line
- To describe and make links between events and changes

Historical enquiry (planning and carrying out historical enquiry/using sources of evidence)

- To compare different sources of evidence about a person, object or change in history and point out some similarities and differences
- To talk about some of the different ways that the past is recorded/represented (to name some types of things which tell us about the past)
- To say which sources (from a selection) are likely to be the most useful for a task
- To identify primary and secondary sources of evidence
- To distinguish between reliable and unreliable sources
- To identify the most useful resources for a particular task
- To understand that some evidence is limited
- To present findings about the past using my speaking, writing, maths (data handling), ICT, drama and drawing skills – Olympic Games

Geography – Coasts and castles (link to Seahouses)

Geographical knowledge (location)

- To understand how people can both improve and damage an environment
- To explain the process of erosion and deposition, and its effect on people
- To locate and name the main counties and cities in and around Newcastle upon Tyne
- To name and locate countries and cities of the United Kingdom
- To name and locate the above geographical regions and their identifying human and physical characteristics
- To name and locate the above key topographical features including hills, mountains, coasts and rivers, and land-use patterns
- To name up to six cities in the UK and locate them on a map
- To locate and name some of the main islands that surround the UK

Physical and human geography

- To describe and understand key aspects of human geography linked to types of settlement in modern Britain
- To describe and understand key aspects of human geography linked to types of settlement in modern Britain, villages, towns and cities
- To describe the main physical differences between cities and villages
- To use appropriate symbols to represent different physical features on a map
- To describe the main features of a well-known city
- To describe the main features of a village
- To explain why people are attracted to live in cities
- To explain why people may choose to live in a village rather than a city
- To explain how a locality has changed over time with reference to human features

Geographical skills and fieldwork

- To read and use the symbols on an OS map
- To use four and six figure grid references
- To plan a route and work out distance using map scales
- To use symbols and key, including the use of Ordnance Survey maps, to build their knowledge of the UK and the wider world
- To label the same features on an aerial photograph as on a map
- To plan a journey to a place in England
- To examine, question, analyse what is discovered, using a range of evidence
- To discriminate between different sources of information
- To test conclusions for accuracy

- To measure wind speed, rainfall and noise levels
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Art and design – Paul Henry (local artist)

Developing, planning and communicating ideas

- To use colour to communicate moods and feelings
- To use other cultures and times as a stimulus

Working with tools, equipment, materials and components to make quality products

- To use a combination of visual and tactile ideas
- To use a program to create mood with digital photography

Evaluating processes and products

- To offer ideas to improve their work and others work
- To begin to work collaboratively
- To select materials and tools and give some reasons for decisions
- To use the appraisal of others for improvement

Drawing and painting

- To begin to show some facial expressions and body language in sketches
- To organise line, tone, shape and colour to represent figures
- To show shadow or reflection by shading

Printing and sketch books

- To use a sketch book to adapt and improve ideas
- To use sketchbooks to record observations and use them to review and revisit ideas

3D/collage and textiles

- To design and make 3D form
- To discuss how to improve work
- To combine different materials in different ways
- To combine visual and tactile qualities
- To select materials and give reasons for decisions
- To discuss with others how to improve or change the work produced

Knowledge

- To learn about great artists, architects and designers in history
- To use what has been taught about the above to make critical comparisons with own work
- To find and explore the work of local artists and give critical responses
- To research what critics say about some art examples

Design and Technology – Mechanical – pop up books

Developing, planning and communicating ideas

- To produce a plan and explain it to others
- To work at a product even though the original idea might not have worked
- To understand designs must meet a range of criteria and constraints
- To understand how some properties can be used – e.g. waterproof
- To think ahead about the order of work
- To produce step by step plans
- To make ongoing sketches and annotations

Evaluating processes and products

- To think of how I will check that the design is successful
- To talk about personal preferences, giving reasons
- To begin to explain how the original design may be improved
- To develop designs through reflection and the evaluation of others
- To carry out tests before making improvements

Mechanisms and structures

- To use a range of advanced techniques to shape and mould
- To use finishing techniques, showing awareness of audience
- To measure carefully so as to make sure mistakes are not made
- To attempt to make the product strong
- To increasingly model ideas before making
- To measure accurately in centimeters and grams

- To combine materials for strength and to improve how the product looks
- To use permanent and temporary fastenings to join
- To join with a greater range of techniques – e.g. staples
- To strengthen joins and corners in a variety of ways
- To understand how wheels, axels, turning mechanisms, hinge and levers all work together

Music – Notation and vocabulary, trumpets

Elements of music (listening and understanding)

- Texture – identify the difference between solo, unison, harmony, layers and drone
- Timbre – identify a wide range of non-percussion instruments by name; distinguish between different ways of playing percussion instruments

Applying and understanding

- To identify how music is produced in different ways including the use of ICT

Controlling

- To sing more complex rounds and partner songs with awareness of different vocal lines
- To make improvements whilst working in a pair or group or whole class commenting on the intended effect

Creating

- To experiment with capturing, repeating and re-ordering sound patterns and sections of pieces

Responding and reviewing

- To improve own and others work with an awareness of the music's context and purpose
- To do the above using shared videos filmed on iPods and iPads used for peer and self-evaluation

Religious Education

Summer 1 RE – What is the bible?

Summer 2 RE - What is faith?

Modern Foreign Languages – French

Oracy

- To listen for sounds, rhyme and rhythm in songs and stories

Literacy

- To read some familiar words and phrases aloud and begin to try to pronounce them accurately

Intercultural Understanding

- To compare traditional stories (from France)

PHSE – Living in the wider world

- To research, discuss and debate topical issues, problems and events that are of concern to them and offer recommendations to appropriate people
- To know why and how rules and laws that protect them and others are made and enforced, why different rules are needed in different situations and how to take part in making and changing rules
- To resolve differences by looking at alternatives, seeing and respecting others' points of view, making decisions and explaining choices
- To know what being part of a community means, and about the varied institutions that support communities locally and nationally
- To appreciate the range of national, regional, religious and ethnic identities in the United Kingdom
- To consider the lives of people living in other places, and people with different values and customs