

Get Out There - Maths

Looking at Wildlife

Simply counting leaves on a tree, trees or other natural features outside

Use quadrats/hoops to survey plants - counting, area, percentages, estimating

Pond dipping/minibeast hunts - counting, estimating, graph of species present, pyramid of numbers

Phenology - look at the time of year that trees are budding, and investigate changes overtime - GLOBE programme

Surveying birds - counting, graphs, look at their migration miles

Measure trees - height, circumference

Recording numbers of different flowers - record by placing a counting block in a different pot - join all the blocks together to visualise a graph

Through Growing Projects

Growing plants - dividing up bed, counting seeds, monitoring growth

Experiments with plants - volume of water added, growth rates, weight of plants, length of leaves

Enterprise around growing and selling plants, seed growing kits, or produce

Harvest fruit, weigh it. Make jam to sell as mini enterprise

Cooking plants - effect of cooking on weight, measuring in recipes

Developing your Grounds

Data handling when surveying opinions about their grounds or locality

Measuring, marking out, cutting wood, scale maps, costing, fundraising

Design outdoor games and mazes (and make the equipment to play them)

Using the Outdoor Space

Area/lengths of buildings, bricks using non-standard and standard units

Scale drawing of building, land, football pitch

Look for shapes and patterns outside in nature and man-made features

Take a world map or school logo – scale up the dimensions to create a large version outdoors using plants or playground paints

Experiment making large scale 2D then 3D shapes using sticks. Turn them into dens whilst communicating mathematically

Create a human bar or line graph using students to demonstrate numbers

Design kites looking at symmetry and fly them

Temperatures in different areas of the grounds and compost bins

Investigate circles and radius by using ropes and cones.

Collect dinosaur blood or items for a wizard's potion to work with volume, weight and capacity

Use measuring vocabulary when looking at trees/leaves and other natural items - wider, taller, heavier...

Data handling - number of cars in the car park, and miles they have travelled - carbon footprint

Use natural materials to create artist representations of maths problems – line of symmetry, number bonds

Create a labyrinth with rope, chalk, mowing in grass, willow

Looking at Wildlife

Observe wildlife as a stimulus for descriptive/creative writing

Observe the features and movement of minibeasts and act out - Big Bug Ball

Observe an animal eg an ant, and write a 1st person account of a day in their life

Create an enchanted wood - write a story or a trail on wooden boards

Create a literacy trail about organisms in your grounds - what am I? poems,

Observe seasonal changes and create an illustrated diary

Investigate medicinal properties or foraging guide of hedgerow plants - create leaflet or trail on Aurasma /QC codes

Comparative language skills looking at trees - taller, wider

Developing your Grounds

Interview people about their ideas for developing the grounds & write newspaper/ newsletter articles

Persuasive writing to governors /headteacher

Letter writing to parents and companies for donations and labour to help develop grounds

Create word walls

Debate issues in the school grounds ie playgrounds rules, or create a debating bench/space

Create a stimulating outdoor space to encourage creativity

Write press releases, blogs and web pages about progress

Develop questionnaires to survey opinions of the grounds, and changes to be made

Build a storyteller chair/area

Using the Outdoor Space

Find a quiet space to read

Develop an outside stage for drama productions – create mural backdrop

List writing - inventory of playground equipment

Create journey sticks to record a nature walk & use to stimulate group and individual storytelling, then writing

Use sounds outside to help with descriptive writing

Write a 1st person account of a water droplet going through the water cycle

Develop communication skills via team building games

Create immersive learning zones – hide a bluetooth speaker for audio and create backdrops for visual. Use to stimulate creative writing.

Encourage imagination play with stick people or small world characters; develop outdoor storyboards of their adventures

Sit by a pond and imagine being a character from an historical period returning from a voyage

Design playground games, teach others then write a set of illustrated instructions

Hide letters/ words for sentence construction. Use sticks, stones as punctuation.

Through Growing

Write a diary about the progress of your growing area

Learn new vocabulary with regards to gardening

Write instructions for planting and recipes

Get Out There - Science

Identify plants in the grounds & locality using & developing keys. Create labelled ID walk or leaflet

Investigate distribution of plants/ animals in microhabitats through the seasons - use counting, quadrats/ hoops, pit fall traps

Minibeast Hunts/Pond Dipping - look at food chains, lifecycles, making keys

Imagine being an ant in 1m² - explore the microhabitat and map or describe what you find

Play food chain games

Grow plants to show lifecycles, food chains, photosynthesis

Create giant models or a mural of a plant to name its parts

Set up experiments giving plants different conditions including different nutrients

Investigate the lifecycle of pests, and ethical ways to control them

Build dens to understand the need for shelter, warmth, then design & create homes for different animals

Record birds, relate seasonal changes to migration

Investigate the needs of plants and animals. Design/develop habitats to increase biodiversity esp. of pollinating insects

Set up different habitat piles to investigate the preferences of different invertebrates

Investigate lichen on a tree and relate to pollution levels

To demonstrate that plants need sunlight, cover areas of grass in a pattern for a week

Investigate soil types to identify the best growing area

Look for fossils in walls or stones used in buildings

Carry out exercise challenges

Describe properties of materials outside, investigate best material to waterproof a den – test with a bucket of water!

Observe evaporation, condensation, melting & freezing outside, Create a weather station & chart seasonal changes

Look for different materials around your grounds and discuss their use

Investigate thermal insulation by taking liquids, toys or students dressed in different materials outside and comparing temperatures.

Investigate reactions using rockets with bicarbonate of soda parcels in vinegar, or extract natural dyes and use in colour change experiments

Identify soil samples and separate using sieving, filtering, evaporation

Irreversible changes of toasting bread & popcorn on a campfire

Set up a compost bin to teach about decomposition including irreversible changes, taking temperatures

Sit on skateboards down ramps onto different surfaces

Investigate forces & levers using outdoor toys & garden equipment, and set up pulley systems on trees

Set up sound tubes and use to teach how sound travels

Role-play the solar system or paint it on the playground

Create large scale catapults to demonstrate levers

Investigate electricity using solar powered cars

Create a sundial using principles of light & shadows

Investigate shadows & how they change during the day

Identify rocks used in building the school and features around it - describe their different properties

Get Out There - Geography

Developing your Grounds

Use aerial photos from Google Earth to identify parts they like and dislike about their grounds.

Survey peoples' thoughts about their school grounds and investigate what they would like to be improve

Investigate microclimates to decide the best place for seating

Make a scaled plan, sketch or model of the grounds and changes they would like

Express their views about litter in the grounds

Create a large scale world map and map of UK on the wall or playground

Compare their grounds to those of other schools

Using the Outdoor Space

Keep a weather diary and set up a weather station

Investigate microclimates around the grounds

Register with the GLOBE programme to compare your weather, climate and other features throughout the world

Observe different cloud types and learn to predict the weather from them

Play games to learn compass/cardinal points

Play games around grid references and map work

Set up an orienteering course in the grounds to develop map and compass skills

Make a scaled map of the school building or grounds including a key

Role play the water cycle or create a mural to depict it

Use a greenhouse to demonstrate the water cycle

Build a temporary hydrolab (tray, sand and water) to demonstrate river systems

Observe birds in the grounds and investigate the countries they have migrated from

Investigate the habitat/climate of your grounds and compare it to other habitats/climates around the world

Investigate the types of rocks used to build the school

Explore the geology in the school grounds and locality

Identify areas in the grounds that flood after lots of rain, and discuss why and how to stop it

Through Growing Projects

Investigate soil types and the best place to set up a growing area

Learn about food miles of the food they eat and the global impact of this compared to growing their own

Investigate the food miles of their hot school meals and look at using their own produce to supplement it

Compare growing conditions of other countries and investigate plants that could be transferable to your grounds

Create a Keyhole Garden and use Send A Cow resources to investigate geographical features of a country in Africa

Get Out There - History

Developing your Grounds

Build large scale catapults and target 'castles' made from cardboard boxes. Link to science on forces

Build a model of Hadrian's Wall or a roman road

Mark out a typical Viking village or castle design in the grounds

Look at ancient building materials - build a typical Viking shelter or other ancient building using mud, lime

Create a memorial to war heroes in your area, or other famous people

Create a mini Stonehenge to be used as a reflection space after re-enacting life in the Bronze Age

Create a model Pudding Lane and set fire to it

Through Growing Projects

Dig for Victory - create a World War 2 garden (combine with a bomb shelter and air raid sirens). Use Bluetooth speakers to play sound of the blitz to fully immerse your students

Create wartime menus from their growing plot and cook them

Investigate other Victorian gardens in your area and use ideas for your own projects

Grow a British Empire Victorian Garden - learn where the different plants we have come from

Invite elderly residents in to support growing projects and discuss the war and what it was like living without computers etc.

Create a garden with medicinal plants used by Florence Nightingale

Using the Outdoor Space

Research Viking raids, build dens and try to raid each other's 'villages'

Sit in a wooded area and imagine being a character from an historical period

Sit by a pond and imagine being Christopher Columbus returning from a voyage. Write about your experiences

Create model Viking ships and float them on your pond (or paddling pool)

Re-enact famous battles or events on the school playing field ie Gunpowder plot

Re-enact the ancient Olympic Games in the grounds

Re-enact roman battles – learning defensive shield moves

Archaeological digs - bury broken objects in the sand pit or on waste ground. Excavate, clean and catalogue findings

Research history of school and local area - look at architectural features for clues

Use the space in the grounds to act out a famous family tree or mark it in chalk on the playground

Research famous people from the past, place the famous people in a story telling chair and interview them about their lives

Research about historical playground games, write up the rules and play them

Get Out There - Art and Design

Observing Nature

Look at colours of nature; create an artist palette on card with double sided sticky tape

Extract natural dyes from berries, grass, beetroot, red cabbage by leaf whacking or just crushing. Dye different materials inc. felt making

Sketch their favourite part of the grounds as a landscape, or sketch/paint close-up work

Sketch views of/from different locations in the grounds; outside in, and inside out

Use natural materials to create a scene - either abstract or along a theme

Look at different patterns in nature ie animal fur/skin, reproduce these onto wooden log rolls and decorate a fence

Weave different materials to brighten up a fence

Through Growing Projects

Develop a planting scheme, concentrating on colour, textures, and heights of plants

Use vegetables and flowers to develop beautiful beds

Design and build scarecrows, bird scarers or other pest deterrents

Developing your Grounds

Design and paint murals - friendship walls, buddy stops, welcome signs or just art walls

Create mosaics on walls/table tops, or paint tiles to place as a welcome sign

Create a dead willow sculpture or living willow structure

Design playground markings and paint them

Paint plywood cut-outs to place on a fence

Using the Outdoor Space

Sculpture design and construction using natural materials or waste wood

Research Environmental Art, look at artists like Andy Goldsworthy

Create ephemeral art in your grounds reflecting the different seasons

Investigate textures of natural and man-made objects - record using rubbings, photography, pencil/charcoal drawings

Use charcoal and/or mud to create drawings of the grounds or close up work. Investigate pointillism artists

Create a blackboard to write on, or a graffiti wall to paint on

Observe different architecture and design a minibeast home in their favourite style

Use mud/clay to make boggarts or faces on trees

Create a photosynthesis picture. Block sunlight in a design on a grassed area for a week then remove

Using chalk & mud create aboriginal/cave man images on the playground or wall

Commission an artist to work with students to design and create sculptures or other features

Use digital cameras for close-up and distance photography

Use digital filming to record a movie in or around the grounds

Investigate pin-hole cameras and take a picture of the grounds

Get Out There - Others

Physical Education

Orienteering Course – can be based around curriculum

Open space for team games and other physical activity – use 'Outdoor Learning Cards'

Specialist Sports Coaches – especially for more adventurous activities

Trim trails to stimulate activity during play

Bouldering wall to promote physical activity – decorate with mural to encourage use

Yoga outdoors – develop reflective space to enhance experience

Develop a performance space for dance/gymnastics with interchangeable backdrops

Develop outdoor obstacle courses – balancing on logs etc

Languages

Practise colour language of different natural objects outside

Play number games in a different language

Learn different vocabulary of the building and grounds

Describe the weather in a foreign language

Photograph themselves doing different activities and caption the photos in foreign language

Citizenship

Vote to decide on new school grounds developments

Team Building Games to develop communication skills

Develop areas of the grounds for reflection and debate

Invite parents & local community to volunteer for grounds

Religious Education

Develop peace garden, reflective space, listening circles – mats, bean bags, stumps

Decorate outside areas for different religious festivals

Create a debating space to discuss moral issues

Grow vegetables popular in different cultures and harvest for their festivals, sharing with the community

Design and Technology

Develop designs to create new learning spaces in your grounds

Design and build items put in your grounds using different skills - growing spaces, wood sculptures, mosaics, info board

Design and build bug hotels, bird boxes, bird scarers

Plant all the vegetables needed for a recipe

Computing

Use digital microscopes/ flexicams to view minibeasts

Create animations/ films /time-lapse images about seasonal changes, grounds developments

Understand algorithms by developing verbal instructions for blindfold challenges

Research then create keys of organisms in your grounds

Use data loggers to record environmental and weather conditions

Create blog, vlog or podcast about seasons/playground issues

Use GPS to geocache or orienteer in your grounds

Use 'Photobooth' or other photo manipulation software to investigate symmetry