



Heart of the Glens

Landscape Partnership Scheme



HEART OF THE GLENS LANDSCAPE PARTNERSHIP SCHEME

Outdoor Learning Resource

FOR TEACHERS BY TEACHERS



This project is supported as part of the Heart of the Glens Landscape Partnership Scheme, which is kindly funded by the Heritage Lottery Fund.

About Heart of The Glens Landscape Partnership Scheme

The Heart of The Glens Landscape Partnership Scheme is a five year programme which is made up of 21 exciting projects that aim to provide a space to facilitate people in reconnecting with the natural landscape and with their native heritage as well as providing training in heritage skills, promoting tourism and business opportunities.

THE MAIN AIMS OF THIS SCHEME ARE:

- TO CONSERVE AND ENHANCE THE BUILT, NATURAL AND CULTURAL HERITAGE
- TO ENGAGE AND INSPIRE COMMUNITIES
- TO IMPROVE ACCESS AND LEARNING IN THE AREA
- TO OFFER HERITAGE SKILLS AND TRAINING

The scheme is funded by the Heritage Lottery Fund and will focus on conserving and enhancing the natural and built heritage of the areas in the traditional Glens from Glentaise between Ballycastle and Armoy, in the north, to Glenarm in the south.



Why Outdoor Learning?

The verdant green landscape of The Glens of Antrim, with its high mountains, rugged headlands, sheep filled pastures and fast flowing rivers is an ideal place for a child to grow up. It may seem unthinkable that even in this, one of Ireland's most beautiful landscapes, that children still do not have a deep connection with the outdoors. However, even in The Glens the impacts of technology, lifestyle changes and the health and safety culture has, for many children, reduced the centuries old connection between young people and the natural world.

International research has shown that there is a continuing disconnection between children and the environment which is set to have long term negative implications for children's health and wellbeing. A recent National Trust study in the UK cites alarming figures for children, "the growing disassociation of children from the natural world and internment in the 'cotton wool culture' of indoor parental guidance impairs their capacity to learn through experience."

THE STUDY SITES EVIDENCE SHOWING THAT:

1. CHILDREN LEARN MORE AND BEHAVE BETTER WHEN LESSONS ARE CONDUCTED OUTDOORS
2. SYMPTOMS OF CHILDREN DIAGNOSED WITH ADHD IMPROVE WHEN THEY ARE EXPOSED TO NATURE
3. CHILDREN SAY THEIR HAPPINESS DEPENDS MORE ON HAVING THINGS TO DO OUTDOORS THAN ON OWNING TECHNOLOGY

Research shows that childhood obesity and behavioural issues are often associated with poor diets and sedentary lifestyles. Even though The Glens of Antrim is a rural location, it does not make our children immune to this phenomenon. Indeed, in conversations with schools, many teachers have cited the decline in outdoor activity and natural play as having a significant negative impact on the development of children attending the schools over past years.

The recent research carried out by the National Trust – Natural Childhood by Stephen Moss demonstrates that children are becoming detached from the living world and this is having long term negative implications for their health as well as their emotional and intellectual wellbeing. While most schools have an interest in and commitment to ecology, pressures of delivering the core curriculum often mean biodiversity and outside learning may not feature as often in the children's learning as teaching professionals would like. Conversations with teachers have informed us that they often feel that they themselves are barriers to the incorporation of outside learning into the curriculum. The main perceived barriers are:

- A. A LACK OF BASIC KNOWLEDGE AMONGST TEACHERS AROUND BIODIVERSITY ISSUES ETC
- B. CONCERNS AROUND MANAGEMENT OF THE CLASS IN AN OUTSIDE ENVIRONMENT AS WELL AS HEALTH AND SAFETY ISSUES FOR THE CHILDREN
- C. COSTS OF TRAVEL TO ACCESS NATURE AND/ OR FOR FEAR TO INTRODUCE BIODIVERSITY AREAS INTO THE SCHOOL GROUNDS, AS IT MAY BE PERCEIVED AS UNTIDY OR UNSAFE
- D. FINDING WAYS OF BRINGING BIODIVERSITY AND OUTSIDE LEARNING INTO THE CURRICULUM SO IT IS MAINSTREAMED INTO SCHOOL TEACHING AND LEARNING PLANS

About the Outdoor Learning project

The main aims of this project are to engage young people in understanding the range of important landscapes, habitats and species around them, and to encourage interaction with the natural environment within their own school grounds and further afield. It is also hoped that this project will help to overcome the perceived barriers for teachers with regards to outdoor learning as outlined in the previous page.

The Heart of The Glens Landscape Partnership Scheme has facilitated a range of outdoor activities with primary schools within The Glens of Antrim.

These include:

1. ARCHAEOLOGICAL DIGS



School children from all the primary schools in The Glens have been involved in four archaeological excavations within the local landscape. The archaeological excavations were carried out in partnership with Queens University Centre for Archaeological Fieldwork and Glens of Antrim Historical Society.

Archaeology is the study of human activity in the past, primarily through the recovery and analysis of the material culture and environmental data that humans have left behind, including artefacts, bio facts and cultural and industrial landscapes. The purpose of this project was to enable the school children to engage with

their local landscape by exploring the archaeological remains and learning about the history and heritage within The Glens of Antrim.

This project was very well received and inspired both pupils and teachers to learn more about their local landscape and aspire to become archaeologists. Each year the school children looked forward to taking part in the excavation. An Archaeological teachers resource was created to enhance the children's learning experience. The purpose of this teachers' resource was to facilitate the incorporation of the excavation into the school curriculum.

2. SALMON IN THE CLASSROOM



The purpose of this project was to raise awareness of the river environment and its biodiversity by seeing it in action. Primary 6 & 7 children from all 14 primary schools in The Glens of Antrim took part in this project which involved an expert working with schools to teach the children about the life cycle of the Atlantic salmon, habitat destruction, pollution and overfishing. The children got some hands-on experience having to look after their own salmon eggs in their mini hatchery in the classroom. The children were then responsible for releasing the young salmon into a nearby river. During the salmon release the children got to take part in some river dipping to discover the wide variety of life in their

local rivers, and learn how to work out the pollution index according to what invertebrates were present. This project taught the importance of river quality and wildlife to the wider landscape.

It was felt that while this project was very valuable to those who got to take part in it, due to the technical and cost requirements it was unrealistic to expect that schools could continue with this project and as such there was no legacy for the future after the Landscape Partnership Scheme has finished. Only one group of primary 6 and primary 7 children could take part in this project and left no means for further children to benefit from this project. Conversations with teachers allowed the scheme to formulate an equally stimulating and cost effective way that teachers could continue to teach the schoolchildren about life cycles, the aquatic environment, and biodiversity. It was decided that this could be carried out in two ways.

1. The installation of ponds on school sites (for schools who had enough space and wanted to include a pond)
2. The provision of classroom tanks for each school so they could carry out the frogs in the classroom project each year on their own.

These activities are both informative, interactive and cost effective, allowing for a continuation of this work into the future.

POND CREATION AND MANAGEMENT

One of the major achievements of the scheme was providing a small pond which fulfilled health and safety requirements, and was also accessible to the schoolchildren. This was achieved by using a standardised construction of a pond and safety grill which was delivered in a cost-effective manner to all schools. All schools have also been provided with a management plan for their ponds.

3. BIODIVERSITY TRAINING FOR TEACHERS

The habitat creation element of outdoor learning in Glens schools began with OPAL (Open Air Laboratories) training for the teachers.

This training aimed to provide a basic knowledge of biodiversity to teachers, and build their interest and confidence in outdoor learning. The training provided the teachers with hands-on experience of carrying out citizen science surveys and how they could incorporate them within their lesson plans in a safe and manageable way. Gretta McCarron from Queen's University delivered the OPAL training to over 40 teachers from The Glens primary schools. Themes included bug surveys, tree health surveys, biodiversity surveys, water surveys, air



surveys and soil and earthworm surveys. Teachers who took part in the training are now able to incorporate these studies as part of the teaching and learning. There is also an opportunity for schools to enter their data into national databases, thus contributing to science.

The OPAL training provided a fantastic starting point for the schools and created a demand to continue the outdoor learning work to the next stage.

4. HABITAT CREATION WITHIN SCHOOL GROUNDS

The next step for those who completed the OPAL training was to create outdoor habitat learning zones which could be used as part of an outside classroom. The main reason for creating outdoor learning zones within the school grounds was to overcome the financial, and health and safety barriers of having to take school children off-site to engage with the landscape and natural world.

A range of habitats were created within the school grounds including ponds, bird nesting boxes, bat nesting boxes, wildflower meadows etc. These outdoor learning zones facilitate school groups to learn about the nature of habitats, get involved in monitoring, using survey techniques and recording species. Other benefits included in this work relate to the creation of artistic, enjoyable, and adventurous experiences. Working in the outdoors gives children the opportunity to use a range of skills and abilities that they may not find in the classroom. For example, they develop skills to assess and manage risk when making decisions, and aids in the development of critical thinking skills to promote lifelong learning.



5. FOR TEACHERS BY TEACHERS - CREATION OF LESSON PLANS



Confidence amongst teachers, has been identified by experts and by teachers themselves as the major obstacle in developing outdoor learning. The final piece of work in this project was the creation of a resource to enable teachers to develop ideas and lesson plans for working in their new outdoor learning zones and beyond. Plans were created which can be customised to suit each school environment, pupils age and individual school curriculum. School teachers from primary schools across The Glens attended

regular meetings over an 18-month period to work collaboratively and share ideas on outdoor learning. The teachers themselves decided that the best way forward was to work together to create a resource that could be used by all schools. Schools came up with various lesson plans and several teachers from different schools came together to compile these lesson plans into one shared teachers resource.

Schools involved in the Outdoor Learning Project

Over the past three years we have been working with 11 primary schools within The Glens of Antrim. The schools involved in this project are highlighted below.



Some teachers comments on the Outdoor Learning Project:

“Exciting”

“As a principal who wished to highlight biodiversity within the school’s curriculum, I was delighted to be part of the Heart of the Glens Partnership Outdoor Learning Project. In starting off with the Opal training sessions, I especially liked learning about tree surveys and bug surveys. We regularly use both the tree and the invertebrate identification guides around the school grounds. Following on from that, my school established an Eco-Council and planned to apply for Green Flag recognition. The on-going teacher training received by the Heart of the Glens Partnership officers helped us make progress with this as we were able to avail of training and to hear of good practice from other schools. I was delighted to release one of my Foundation Stage teachers to help to compile the Resource Booklet planned by the Partnership. With the resource booklet and with the upskilling of my staff, I have no doubt that biodiversity will continue to play a big role in the curriculum of my school and in the lives of our school children”.

Brídín Ní Dhonghaile, Principal of Gaelscoil an Chaistil, Ballycastle

“Inspiring”

“Enriching”

“The development of our grounds has been both exciting and inspiring. Learning and teaching in our school has been enriched for years to come. The pond, meadow and bat boxes were something we wouldn’t have attempted ourselves so the support of the team at CCGHT Heart of the Glens LPS has been invaluable”.

Anne McDaid, St Patricks Primary School, Glenariff

“Invaluable”

“Sharing”

“It was so helpful to share ideas, lessons and resources with other teachers in the local area. I enjoyed creating the outdoor learning resource collaboratively with other teachers as it highlighted how much good outdoor learning was already taking place in my class. It also made the prospect of embedding more, easy rather than a huge task. The lessons that are in this resource have been tried and tested and I will enjoy implementing them in Seaview over the coming years”.

Ashleigh Moran, Seaview Primary School, Glenarm

“Easy”

“Good Practice”

NOTES:



Lesson Plans: Foundation Stage Autumn



Leaf Sorting

Curriculum Areas

World Around Us
Numeracy

Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- SORT FOR 1/2 CRITERION
- RECOGNISE SIMILARITIES AND DIFFERENCES
- USE VARIOUS SORTING DIAGRAMS TO MANAGE INFORMATION

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- USE TREE / CARROLL / VENN DIAGRAMS TO SORT THE LEAVES
- CHOOSE A CRITERION AND SORT THE LEAVES ACCORDINGLY

MATERIALS

Sorting diagrams / sorting hoops, leaves, leaf identification chart

INTRODUCTION

Take the children outside to complete a leaf hunt.

Discuss ways to sort the leaves with the children.

Show the children the various sorting diagrams and discuss ways in which they could sort the leaves (size / colour / name of leaf).

DEVELOPMENT

1. Children working in groups and will rotate in a carousel to complete different sorting diagrams
2. Children to decide the criterion they are going to use (colour / shape / size / name of leaf)

PLENARY

Ask children to give examples of how they sorted the leaves.

Sort leaves for the children and ask them to name the criterion used.

Revisit learning intentions with the children.



OTHER IDEAS

1. Leaf matching – Match leaves to an identification chart or match leaves of the same species
2. Leaf & conker counting – Count leaves, speed counting, throw leaves in the air and count how many you can catch, count leaves in twos
3. Leaf threading – use a stick to thread leaves onto a piece of string
4. Movement – make up a dance about a tree and a leaf

Leafy Art

Curriculum Areas

World Around Us
The Arts
Literacy
Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- INVESTIGATE LEAVES USING THEIR SENSES
- CREATE A LEAF RUBBING



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- TALK ABOUT THE VARIOUS CHARACTERISTICS OF THE LEAVES
- USE CRAYONS / OIL PASTELS TO COMPLETE A LEAF RUBBING

MATERIALS

Leaves, crayons, oil pastels, baskets.

INTRODUCTION

Head outdoors with baskets to collect different leaves.

Encourage children to discuss size / shape / feel of the different leaves with their partner.

Discuss learning intentions with the children.

DEVELOPMENT

1. Show the children how to complete leaf rubbing – Place a leaf underneath a piece of paper and hold in place
2. Gently rub a crayon over the top and the shape and texture of the leaf should be seen
3. Children completing leaf rubbings using leaves of different shapes and sizes

PLENARY

Peer – assessment on samples of the children's work.

Revisit learning intentions with the children.



OTHER IDEAS

1. Clay texture work with leaves and twigs
2. Twig and stick puppets
3. Stick art
4. Measuring and ordering size of twigs and leaves
5. Mud kitchen play

Nature Walk

Curriculum Areas

World Around Us
Literacy
The Arts

Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- NAME DIFFERENT TYPES OF TREES AND SPOT THEIR DIFFERENCES (DECIDUOUS / EVERGREEN)
- RECOGNISE SIGNS OF AUTUMN SUCH AS AUTUMN LEAVES, HIBERNATING ANIMALS, NUTS, SQUIRRELS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- LIST THEIR FIVE SENSES
- NAME THINGS THEY MIGHT FIND IN AUTUMN
- USE THE TERM 'EVERGREEN' OR 'DECIDUOUS'

MATERIALS

Document camera, white board, pictures of deciduous and evergreen trees, autumn leaves, acorns, paper bags.



CIRCLE TIME DISCUSSION

Review autumn, tree names and facts (deciduous and evergreen).

Ask the children for descriptive words about autumn. Write the words on chart.

Review animals that hibernate in the winter. Remind children that squirrels gather nuts as they fall and store them for the winter. Explain that nuts are the tree's seeds.

Inform the children about the planned nature walk. Instruct them on certain things to collect while out walking, eg. leaves, nuts, pine cones and small twigs.

Before leaving on the nature walk, provide each child with a paper bag for autumn collections.

Upon return from nature walk

FIVE SENSES - Ask children to describe the sights, sounds and smells of the nature walk. Record answers on a chart and discuss the descriptive words.

PLENARY

Read 'Guess, How much I love you', an autumn story!

OTHER IDEAS

1. Leaf printing
2. Pinecone stamping
3. Use tree stumps for noughts and crosses
4. Set up tents / role play areas around trees in school grounds (investigating hibernation)
5. Creating a story tree using prop baskets
6. Journey sticks – collect items on a nature walk and use to recount and for creative writing

A Tree Hug

Curriculum Areas

World Around Us
The Arts
Literacy

Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- MEASURE, COMPARE AND RECORD OUTDOORS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- MAKE A MODEL AS PART OF A CO-OPERATIVE GROUP
- ESTIMATE THE AGE OF A TREE
- CALCULATE THE AGE OF A TREE USING ITS ANNUAL RINGS
- CALCULATE THE AGE OF TREES USING THEIR WIDTH
- CLASSIFY TREES INTO DIFFERENT GROUPS



MATERIALS

Tree jigsaws, tree rings, greaseproof paper, thick pencils, laminated pictures of assorted trees, hula hoops, charcoal, clip boards, paper.

INTRODUCTION

Outline learning intention. Learn how to measure trees outdoors. Give jigsaw and students make a tree. Teach main parts of a tree, trunk, roots, branches, twigs, leaves etc. Stand beside tree and point to parts.

DEVELOPMENT

1. Give students tree rings (smaller logs), greaseproof paper and a stubby pencil / crayon. Use materials to make a rubbing of cross section of tree. What pattern do you notice? What do you think these rings show? How old do you think this tree was?
2. Look at trees in the school grounds. Hug a tree (4 trees pre prepared with laminated sheet and names) Compare the trees girth and decide which is oldest / youngest.
3. Give students pictures of trees and hula hoops. Work as part of a group to classify pictures. Discuss how groups are different (evergreen and deciduous). Teacher explanation about trees.

PLENARY

Give students clip boards, paper and charcoal rods. Discuss what charcoal is. Find a tree and use charcoal rod to draw picture of tree.

OTHER IDEAS

1. Tree stump geoboards
2. Find the tallest, largest, furthest, widest tree
3. Count the number of paces between one tree and another
4. Check out the bark – if you have trees in your school grounds tie some strips of corrugated card around the trunk and check back in a few days to see what has taken shelter underneath
5. “Meet a tree” activity available from Joseph Cornell’s sharing nature website <http://www.sharingnature.com/meet-a-tree.html>

A Bat Or A Bird

Curriculum Areas

World Around Us
The Arts
Literacy

Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- OBSERVE BATS AND BIRDS IN SCHOOL GROUNDS
- INVESTIGATE AND UNDERSTAND THE SIMILARITIES AND DIFFERENCES BETWEEN TWO FLYING ANIMALS WHICH ARE NATIVE TO IRELAND

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO

- LIST SIMILARITIES AND DIFFERENCES BETWEEN BATS AND BIRDS
- USE DESCRIPTIVE LANGUAGE TO DESCRIBE STELLALUNA

MATERIALS

Camera, Stellaluna, puppets, binoculars.

INTRODUCTION

Read the story of Stellaluna by Janell Cannon.

KEY QUESTIONS

What can birds do?

What can bats do?

What does Mother Bat do with Stellaluna every night?

What do they eat? The author tells us what type of food bats eat.



DEVELOPMENT

1. Go out into the school grounds to observe where bats live and birds. Note down observations using clipboards (drawings).
2. Using a story frame, write about one thing that is the same about the birds and Stellaluna. Write about something that is different. Tell why Stellaluna and the birds are special friends. Draw a picture of Stellaluna and the birds together. Based on what you read in Stellaluna, what did Stellaluna and the bats learn about each other?

PLENARY

Little bat song

OTHER IDEAS

1. Link to Batty about Bats Think Pack (TSPC)
http://www.nicurriculum.org.uk/curriculum_microsite/TSPC/doc/think_pack/storybooks/listen_and_think/year2/1_Batty_About_Bats.pdf
2. Nest building in play

Resources for lesson plan

A Bat or a Bird?

Bat puppet http://d33y93cfm0wb4z.cloudfront.net/slideshow/pdfs/bat_finger_puppet.pdf

Little Bats

1 little bat was trying to behave.
He hung upside down from his feet in a cave.
Another bat flew in, and said, "How do you do?"
The second joined the first, and then there were 2!



2 little bats were trying to behave.
They hung upside down from their feet in a cave.
To help pass the time, they sang "Do re me"
Another bat joined the song, and then there were 3.

3 little bats were trying to behave
They hung upside down from their feet in a cave
From their cave perch, they looked down at the floor,
A new bat joined the game, and then there were 4.

4 little bats were trying to behave.
They hung upside down from their feet in a cave.
One little bat zoomed inside and did a dive.
He stayed to take a rest, and with him there were 5.



Lesson Plans: Foundation Stage Winter



Birds



Curriculum Areas

World Around Us
Literacy

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- OBSERVE BIRDS IN WINTER IN THE SCHOOL GROUNDS
- INVESTIGATE AND UNDERSTAND HOW IT IS DIFFICULT FOR BIRDS TO FIND FOOD IN THE WINTER
- UNDERSTAND WHAT FOODS ARE APPROPRIATE FOR BIRDS AND HOW TO CREATE A SIMPLE FEEDER

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- IDENTIFY NATIVE BIRDS
- NAME APPROPRIATE FOODS FOR BIRDS
- SUCCESSFULLY CREATE A BIRD FEEDER

MATERIALS

Pine cones, peanut butter, bird seed, paper plates, ribbon or pipe cleaners.

CIRCLE TIME DISCUSSION

Ask children if they have ever seen, or if they have a birdfeeder in their yard. Ask if they know what type of foods birds can safely eat. Explain they will each be making a birdfeeder to offer birds a snack. Also explain they may be able to see different types of birds as they come to feed.

DEVELOPMENT

1. Begin by tying a ribbon or pipe cleaner to the top of a pine cone for hanging. Remind students to keep as much peanut butter as possible of this ribbon/pipe cleaner.
2. Have students use their fingers or plastic knives or spoons to smear peanut butter all over a pine cone. Place birdseed on a paper plate and allow students to roll the peanut butter covered pine cone in the birdseed. The seeds should stick on the peanut butter well.
3. Allow students to choose spots outdoors to hang their bird feeders.

PLENARY

Listen to BBC School Radio podcast about birds in winter.

<http://www.bbc.co.uk/programmes/b03g64pd/episodes/player?page=4>



PLAY BASED LEARNING IDEAS

1. Add bird seed to the sensory area to explore different foods birds can eat
2. Paint our native birds
3. Finger gym String worms and bird pegs
4. Writing numbers with feathers and paint
5. Robin arts and crafts

OTHER IDEAS

1. Monitor bird feeders using a tally chart to count the numbers of bird that visit
2. Put out different types of food e.g. peanuts, seeds, bird cakes and observe which one they like best
3. Make a 'Winter Bird Café' make lots of different types of feeders and write a menu for the birds. To add an element of numeracy prices could be added
4. Listening station- mini audio books from the RSPB <http://www.rspb.org.uk/kids-and-schools/kids-and-families/kids/earlyyears/stories/bedtime-stories.aspx>

A Winter Home

Curriculum Areas

World Around Us
The Arts
STEM

Length: 45 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- DISCUSS WHICH NATIVE ANIMALS NEED A HOME IN WINTER
- DESIGN AND USE NATURAL MATERIALS TO CREATE A SHELTER

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- LIST HIBERNATING NATIVE ANIMALS. FOR EXAMPLE HEDGEHOG OR SQUIRREL
- MAKE A SUITABLE SHELTER USING NATURAL MATERIALS

MATERIALS

Foraged materials e.g. sticks, stones, dead grass, leaves.

CIRCLE TIME DISCUSSION

What are the features that make somewhere a good home? Discuss the need for shelter; to be warm / dry / near water and food.

Which natural materials could be used to build one if you were an animal living in the local wood?

DEVELOPMENT

1. Gather some natural materials and build a shelter in a suitable place (e.g. on the ground for a hedgehog, in a tree for a squirrel).

PLENARY

Make a hibernating mammal from clay to live in your newly made home

Story "A House is built at Pooh Corner for Eeyore" by A.A. Milne



KS1 / KS2 POSSIBLE EXTENSION

Extend the activity into thermal properties of materials by using bottles filled with hot water as the animals. Take each animals temperature at the start and leave them in their homes for a set time. Then return later to retake temperatures.

OTHER IDEAS

1. Measure and compare shelters made (size, length) using non-standard units
2. Make a food store for hibernating animals
3. Making animal puppets to retell stories such as "The First Snow of Winter" by Graham Ralph

Outdoor Symmetry

Curriculum Areas

World Around Us
Literacy

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- RECOGNISE AND UNDERSTAND ONE LINE OF SYMMETRY
- USE NATURAL RESOURCES TO MAKE SYMMETRICAL PATTERNS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- CREATE A MIRROR IMAGE



MATERIALS

Pebbles, leaves, twigs, camera, skipping rope, examples of symmetry in nature (flash cards).

CIRCLE TIME DISCUSSION

Discuss how we are going to create symmetrical patterns using things we find outdoors in nature.

DEVELOPMENT

ACTIVITY 1

Lay a skipping rope on the ground to represent a mirror line.

Two children stand opposite each other on either side of the rope imagining they are looking in a mirror. One child makes a shape and the other child makes the reflection.

ACTIVITY 2

Children are given trays and in groups collect items found (pebbles, leaves, twigs).

Discuss objects found.

ACTIVITY 3

Children work in groups making symmetrical patterns by laying out objects on either side of the mirror line.

Take photos of the shapes and patterns to record the children's work.

PLENARY

Discuss what we learned today and where we could go to make other symmetrical patterns.

OTHER IDEAS

1. Identify symmetrical animals in nature such as butterflies
2. Draw / paint reflections in puddles
3. Using chunky chalk in the playground; one child draws half a shape and the other child finishes it
4. Reinforce knowledge of 2D shapes by using large twigs and branches to make them

NOTES:

A series of horizontal dashed lines for writing notes, overlaid on a background image of a sunset over a body of water with palm trees in the foreground.

Lesson Plans: Foundation Stage Spring



Minibeasts

Curriculum Areas

World Around Us

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- IDENTIFY A NUMBER OF COMMON MINIBEASTS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- FIND AND NAME MINIBEASTS IN THE SCHOOL GROUNDS
- WORK TOGETHER IN GROUPS TO SUCCESSFULLY RETELL THE STORY OF A BUG

MATERIALS

String, magnifying glasses, white trays, gloves, nets

CIRCLE TIME DISCUSSION

Discuss what an insect is. See if the children can name as many insects as possible and record them on your whiteboard. Discuss equipment that the children will be using outside and explain to them that it is important that they don't lose the creatures after they have caught them and that they are returned to the same place afterwards.

KS1 / KS2 POSSIBLE EXTENSION

Introduce terminology such as 'invertebrate'
Some minibeasts feed on dead materials helping to turn it into useful compost.
Focus on food chains / webs

DEVELOPMENT

1. Point out good minibeast habitats such as under stones, logs, long grass.
2. Spend some time looking for a wide variety of creatures and use the flashcards to identify them. Think of any special features such as; are they slimy? Do they have a sting? Do they have wings so that they can fly?

PLENARY

Each child takes a piece of string back out into the wildlife area and lies on the ground next to it. Imagine you are one of your insects and follow its journey along the string. What happens when he meets an obstacle like a rock or a puddle and what happens if he meets another insect?

OTHER IDEAS

1. Write a story or a poem about their journey
2. Make a bug hotel
3. Using sorting diagrams to sort bugs (tree diagram)
4. Read bug related literature e.g. "The Very Hungry Caterpillar" by Eric Carle
5. Singing 'The Ugly Bug Ball'



Life Cycle of a Frog

Curriculum Areas

World Around Us

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- OUTLINE THE LIFE CYCLE OF A FROG
- SEQUENCE THE LIFE CYCLE OF A FROG
- UNDERSTAND THE CONCEPT OF GROWTH
- OBSERVE EACH STAGE IN THE NATURAL HABITAT



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- CORRECTLY NAME THE DIFFERENT STAGES OF THE LIFE CYCLE OF THE FROG (FROGSPAWN, TADPOLES, FROGLETS, FROGS)
- DISCUSS AND DESCRIBE EACH STAGE WITH DETAIL THROUGH OBSERVATION

LITERACY

- Set up a reading area with a selection of non-fiction books about frogs (include soft toy frogs) This can be taken outside in good weather
- Use a microphone to record the children retelling the life cycle of a frog
- Make frog masks and in groups create their own frog themed stories

NUMERACY

- Have numbers on lily pads and use plastic frogs to match the correct number of frogs to each lily pad
- Sing 'Five Little Speckled Frogs'
- Children jump from numbered lily pads backwards and forwards

THE ARTS

- Make a pond scene by doing bubble painting (mix washing up liquid with paint & straws)
- Do marble painting onto frog shaped templates to make speckled frogs
- Using musical instruments, make sounds like a jumping frog (fast, slow, loud, quiet)

WORLD AROUND US

- Watch frog spawn grow in the pond
- Record what is happening at each stage
- Use a paint / drawing program on I-Pad / computers to draw pictures of the life cycle of a frog
- Set up a small world version of the song 'Five Little Speckled Frogs'

PLAY BASED LEARNING

- Frog themed jigsaws
- Green playdough for children to sculpt their own frogs
- Five Little Speckled Frogs stick puppets at numeracy table
- Listening station – audio version of a frog book
- Role play area with frog masks / pond
- Water tray with frogs and lily pads. Use bubble wrap to make frogspawn



Wildflower Planting

Curriculum Areas

World Around Us
Literacy

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- PLANT A WILDFLOWER
- IDENTIFY KNOWN WILDFLOWERS BY PICTURE
- LIST 3 THINGS THAT A PLANT NEEDS TO GROW
- OBSERVE CLOSELY THE GROWTH OF THE WILDFLOWERS



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- PLANT A WILDFLOWER SUCCESSFULLY
- NAME WILDFLOWERS ON SCHOOL SITE
- KNOW WHAT A PLANT NEEDS TO GROW

MATERIALS

Seeds, soil, watering cans, flower beds / pots, lollypop sticks, labels.

CIRCLE TIME DISCUSSION

Introduce children to the equipment they will be using in the lesson. Look at the plants we will be planting and discuss common wildflowers. Discuss what a plant needs to grow using visual aids.

Questions

- What will happen if we don't put the seed in the soil?
- What will happen if we don't give the bean any water?
- What will happen if we leave the bean in the dark?

DEVELOPMENT

1. Plant the seeds in the flower beds / pots giving all children an opportunity to be involved.
2. Draw a line in the soil and sprinkle seeds along it. Cover over with soil. Label the species planted.
3. Children water the seeds and place them in a sunny spot.
4. Explain to the children that these plants will be transferred to the meadow in the summertime.

PLENARY

Watch BBC Science clip for simple explanation of what plants needs to grow.

Children will closely observe the growth of the plants on a weekly basis and record results.

OTHER IDEAS

1. Read 'The Tiny Seed' by Eric Carle
2. Identifying seeds and sort
3. Write instructions for another class on how to plant a wildflower seed
4. Use seeds to create pictures in art
5. In P.E, create a dance pretending you are a seed and growing up towards the light

NOTES:

Lesson Plans: Foundation Stage Summer

FOUNDATION STAGE
SUMMER



Over in the Meadow

Curriculum Areas

World Around Us
Literacy

Length: 30 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- DEVELOP APPRECIATION OF WILDFLOWERS
- NAME THE PARTS OF A PLANT
- DESCRIBE THE MEADOW USING THE FIVE SENSES
- ENGAGE WITH THE STORY USING ACTIONS



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- LISTEN TO THE STORY AND RESPOND APPROPRIATELY TO QUESTIONS
- ACCURATELY LABEL A PLANT
- DESCRIBE WHAT THEY SEE, HEAR, FEEL, TOUCH AND TASTE IN THE MEADOW

MATERIALS

Over in the Meadow by Ezra Jack Keats, tweezers, paper, crayons, trays, watering cans, finger paint.

INTRODUCTION

Take the children to the meadow and talk about the flowers they can see.

Flower Rubbing Plates - Each participant will get a tray, piece of paper, crayon and flower rubbing plate of their choice. Place paper on top of plate and rub with crayon. Ask participants "Have you seen flowers like this before? If so where? In a garden? In your neighbourhood? Were the flowers in rocky soil? In a shady spot? Etc."

DEVELOPMENT

Read through the book, 'Over in the Meadow' slowly, teaching children the following movements.

1. "Dig!" said the mother. (Use your hands to make a scooping/digging motion, as if you had flippers.)
2. "Swim!" said the mother. (Put your hands together in front of you and sway them back and forth to simulate a fish swimming.)
3. "Sing!" said the mother. (Place a hand on your chest, and reach the other hand out in to the air, as if you're singing.)
4. "Dive!" said the mother. (Put both hands together and point down as you bow your head, as if you're going to plunge into the water.)
5. "Buzz!" said the mother. (Put your hands to your sides and quickly flap your fingers to simulate a buzzing bee's wings.)
6. "Caw!" said the mother. (Put your arms out to your sides as if you're a crow flapping your wings, and make one "caw" sound.)
7. "Chirp!" said the mother. (Rub your hands and arms together.)
8. "Bask!" said the mother. (With head upturned, spread your arms out, palms up, to welcome the sun.)
9. "Croak!" said the mother. (Croak like a frog and make a little stationary jump as you croak once.)
10. "Shine!" said the mother. (Throw your fingers open in front of you, to simulate a flashing light.)

FLOWER DISSECTIONS

If appropriate / available pass out trays with tweezers, hand lenses and flowers. Talk through the parts of plants while showing pictures of each structure. Talk about the function of each plant structure as participants use tweezers to pull apart each plant part. Focus on roots, stems, leaves, flowers, and compost remains.

PLENARY

Spend peaceful time in the wildflower meadow. Use the five senses to draw attention to all elements of the meadow. Could have a guided meditation session outdoors in the meadow.

OTHER IDEAS

1. Meadow sensory play - flowers, stalks, water, watering cans
2. Finger print flower counting
3. Pick some flowers and press to make flower panels



Summer Sensory Garden

Curriculum Areas

World Around Us
PDMU

Length: Over a
few days



LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- USE DIFFERENT PLANTS AND OBJECTS TO CREATE A SENSORY TOPIC GARDEN

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- ENGAGE AND BEHAVE APPROPRIATELY IN THE SENSORY GARDEN

MATERIALS

Mint, roses, heather, sunflowers, marigolds, bamboo, wind chimes, herbs, vegetables.

CIRCLE TIME DISCUSSION

Discuss the five senses and how we use our senses to learn about the World Around Us. Inform the children that we are going to create a sensory garden box. What type of things could we plant?

DEVELOPMENT

1. Sort plants / objects according to the senses for example, mint for sense of smell, herbs to taste and a wind chime to hear.
2. Prepare garden box.
3. Take out stones and weeds and add more compost.
4. Design a garden box using squared paper.
5. Use lollypop sticks to mark where certain plants are going to go.
6. In groups, children begin planting.
7. When all the plants have been planted and watered, children add coloured glass beads, pebbles and sand. Glue mosaic tiles onto the wood of the bed box.

PLENARY

Complete a senses worksheet outlining which senses they used.

Enjoy and spend time in your sensory garden. Record changes and maintain, take care of it.

OTHER IDEAS

1. Use items from your sensory garden to create 'perfume'
2. Explore different ways to describe the sensory experiences you have had and use it to write poems
3. Present their sensory gardens to other classes
4. Bring the outdoors in through cookery for example using herbs

Parts of a Plant

Curriculum Areas

World Around Us

The Arts

Length: 30 mins

LEARNING INTENTIONS

CHILDREN WILL BE ABLE TO:

- NAME THE PARTS OF A PLANT



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- USE A MAGNIFYING GLASS TO OBSERVE PLANTS
- WORK AS PART OF A GROUP
- MAKE A JIGSAW OF A PLANT
- CORRECTLY LABEL A PLANT

MATERIALS

Hula hoops, magnifying glasses, whistle, jigsaw puzzles, clip boards, pritt sticks, plant pictures, flower diagram.

CIRCLE TIME DISCUSSION

Discuss things we find in the outdoors. What do we see? Outline learning intention. Give students a magnifying glass each. Explain what it does and how to use it. Each student stands inside a hula hoop and looks at different types of plants. On whistle sound – move to a different hoop and observe other types of plants. Do this two times.

DEVELOPMENT

1. Discuss parts of the plant together using a plant as an example. Put students in groups of two. Give each group a jigsaw puzzle. Students work as a group to make the puzzle.
2. Complete cut and stick activity individually.

PLENARY

Slowly reveal different parts of a flower, students guess what part it is before fully removed from envelope.

Paint a flower and label. Discuss with your friend the colour of the leaf, stem and flower that you made.

OTHER IDEAS

1. Create a flower shop in the Role Play Area
2. Make a mural of a large plant such as a sunflower then label
3. Read 'Sam plants a Sunflower' by Kate Petty & Axel Scheffler
4. Garden activities in tuff tray
5. Provide flowers and sketch pad

Lesson Plans: Key Stage One and Two Trees



Tree Rings



Curriculum Areas

World Around Us
Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- MEASURE AND RECORD DATA IN THE OUTDOORS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- LABEL PARTS OF A TREE
- USE TREE RINGS TO CALCULATE THE AGE OF A TREE

MATERIALS

Tree cross sections, rope, clothes pegs, historical pictures and word cards, tree diagram, 2m tape measures and 30m tape measures, tree identification charts, rulers, pencils, student guide sheets.

INTRODUCTION

Outline learning intention – Today we are going to learn how to measure and record data outdoors. Give students tree jigsaws. In groups of three or four make jigsaws and label parts of tree. At end of activity ask students what three things you can learn from trees. Give students pictures of different trees and hula hoops. Classify pictures into two groups (Deciduous and Coniferous). Go around grounds and classify trees as deciduous / coniferous.

DEVELOPMENT

1. Give students log cross sections. Use tree rings to calculate age of trees by counting rings. What things have happened during the life of the trees? Use timeline activity to sequence events into chronological order.
2. Ask question – How can they find age of trees without cutting them down? Think Pair Share.
3. Give students measuring tapes. Model how to find age of tree. Measure 1 metre up tree and measure girth. Divide girth by 2.5 using a calculator to give the age of the tree. Each group goes to a tree and finds the age of the trees using the same technique. Complete as a carousel until all groups find age of all trees. Return to group and discuss results.

PLENARY

Complete data sheet and record type of tree and age of tree. Draw a picture of each tree. Discuss results – do they have any ancient trees? Is it deciduous or coniferous?

OTHER IDEAS

1. Make a bark rubbing
2. Ancient tree hunt resources are available from the Woodland Trust. Record fat, old trees or ones with an interesting history. www.ancient-tree-hunt.org.uk



Tree Activity One

THINK PAIR SHARE

What information can you find out by looking at this section of log?

1.

2.

3.

Think, Pair, Share how could we find out the age of a tree without cutting it down?

FINDING THE AGE OF TREES

1. Measure 1 metre above the ground
2. Measure the distance around the tree using a measuring tape
3. Divide the distance around the tree measurement by 5 and then multiply by 2 to find the average growth
4. Record the age in the table below

GIRTH DIVIDED BY 5
MULTIPLY BY 2
EQUALS AGE

AGE OF TREES

YOUNGEST

OLDEST



Tall Trees

Curriculum Areas

World Around Us
Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- MEASURE AND RECORD DATA IN THE OUTDOORS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- MEASURE THE WIDTH OF A TREE AND CALCULATE ITS AGE USING A FORMULA (SEE TREE ACTIVITY SHEET ONE)
- CALCULATE THE HEIGHT OF A TREE USING A MEASURING TAPE



MATERIALS

Tree cross sections, rope, clothes pegs, historical pictures and word cards, tree diagram, 2m tape measures, 30m tape measures, tree identification charts, rulers, pencils, student guide sheets.

INTRODUCTION

Outline learning intention – Today we are going to learn how to measure and record data outdoors. Go on a tree hunt around the school grounds and find the largest, tallest, furthest, widest tree. Explain to the children that there are different ways to calculate the height of a tree. Ask children for other suggestions.

DEVELOPMENT

1. Give children Tree Height Sheet.
2. Get children to estimate height of trees – how many people tall is tree A?
3. Demonstrate to students how to find the height of a tree by looking through your legs and measuring from base of tree to where you are standing.
4. Give students bean bags / cups and a measuring tape.
5. Return to trees to calculate heights.
6. Each group completes all four trees.
7. Compare heights of trees.

PLENARY

Complete data sheet and record type and height of each tree. Draw a picture of each tree. Discuss results – What tree is the tallest on our school site? Which is the shortest? Is it deciduous or coniferous?

OTHER IDEAS

1. ICT resource task to discover world's tallest trees
2. The needles of a Douglas Fir trees smells like spicy oranges. Beech tree trunks look like elephant legs. Children can invent their own tricks to help them recognise different tree species

The Language of the Trees

Curriculum Areas

World Around Us
Thinking Skills

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- IDENTIFY LEAVES
- MANAGE INFORMATION (THINKING SKILLS AND PERSONAL CAPABILITIES)
- BEGIN TO DEVELOP AN UNDERSTANDING OF IRELAND IN THE PAST AND LEARN THE GAELIC TREE ALPHABET



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- USE THE TREE ALPHABET / TREE IDENTIFICATION LEAFLET TO IDENTIFY THE LEAVES
- MATCH LEAVES TO THE CORRECT TREE

MATERIALS

Trees on school site, Baskets for leaf collecting, Outdoor learning area, Sorting diagrams, Tree identification leaflets.

INTRODUCTION

Talk to the children about the different trees on site and encourage them to name the trees that they have learnt already. Look at the Gaelic tree alphabet and talk about links to our modern alphabet. Explain that people used the tree alphabet to spell words in our history.

DEVELOPMENT

1. Take the children outside to complete leaf hunt.
2. Encourage them to study the leaves and find as many different leaves as they can – look for similarities and differences.
3. Bring the leaves inside or use outdoor classroom area.
4. Children to use tree identification leaflet to identify the different trees and connect to a letter of the alphabet.
5. Resource online any trees they could not identify.

PLENARY

Give each child a leaf and they have to run to the tree it came from

How many leaves can you identify?

Can you spell your name using the tree alphabet?

Revisit learning intentions with the children.



OTHER IDEAS

1. For lots of other resources on trees visit <http://www.woodlandtrust.org.uk/get-involved/schools/curriculum-linked-resources/>
2. Investigate the Ogham alphabet and use this to spell and write different words. Challenge your friend to work out what you have written

Trees across the Seasons

Curriculum Areas

World Around Us
Thinking Skills

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- IDENTIFY AND NAME A VARIETY OF TREES INCLUDING DECIDUOUS & EVERGREEN
- IDENTIFY AND DESCRIBE THE BASIC STRUCTURE OF A TREE
- FIND OUT AND DESCRIBE HOW TREES NEED WATER, LIGHT AND A SUITABLE TEMPERATURE TO GROW AND STAY HEALTHY
- OBSERVE CHANGES ACROSS THE FOUR SEASONS

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS

IF THEY ARE ABLE TO:

- CORRECTLY IDENTIFY A DECIDUOUS AND EVERGREEN TREE
- LIST WHAT A TREE NEEDS TO GROW
- LABEL THE PARTS OF A TREE
- CORRECTLY COMPLETE A CHART DESCRIBING A TREE IN EACH SEASON



MATERIALS

Soft crayons, white paper, compass, coloured paper, blu tac, scissors, pins, tape measures, measuring sticks, pencils, rubbers, clipboards, worksheets.

INTRODUCTION

Explain the difference between deciduous and evergreen trees. Discuss today's lesson.

DEVELOPMENT

Activity 1 Take rubbings of the bark and leaves of a deciduous and evergreen tree. The children are brought back to the group and asked to showcase their drawings. Describe similarities and differences for example, evergreen leaves are often needle like and are waxy whilst deciduous leaves may be broad.

Activity 2 Teacher will explain the different parts of a tree. Children are divided into groups of five and assigned a different function on a sticky label. The children must work together to each enact their part of the tree. In each group children must then explain their part and function of the tree.

Activity 3 Children are asked if trees look the same all year round. What changes do they notice? Children are then given four images of a tree and are asked to draw and colour in the tree to show what it looks like in Spring, Summer, Autumn and Winter.

PLENARY

The children choose a tree on the school grounds and for a few weeks in each season, spend time observing it.

OTHER IDEAS

1. Green Tree Award – this award rewards schools who take part in green activities including tree planting, recycling and reducing carbon emissions. It is free to participate in and open to all. Visit www.woodlandtrust.org.uk

All about Trees

Curriculum Areas

World Around Us

Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- MEASURE AND RECORD DATA IN THE OUTDOORS



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- LABEL PARTS OF A TREE
- USE TREE RINGS TO CALCULATE THE AGE OF A TREE
- MEASURE THE WIDTH OF A TREE AND CALCULATE ITS AGE USING A FORMULA
- CALCULATE THE HEIGHT OF A TREE USING A CLINOMETER

MATERIALS

Tree cross sections, rope, clothes pegs, historical pictures and word cards, tree diagram, supersighters, 2m tape measures and 30 m tape measures, tree identification charts, rulers, pencils and student guide sheets.

INTRODUCTION

Outline learning intention – Today we are going to learn how to measure and record data outdoors. Give students tree jigsaws. In groups of three or four make jigsaws and label parts of tree. At end of activity ask students what three things they can learn from trees. Give students Identification charts and go around school grounds and try to identify trees.

DEVELOPMENT

1. Give students cross section of a log. What can you tell from log cross section?
2. Count rings and calculate age of tree.
3. Complete clothes line activity – students given pictures and word cards.
4. Students with pictures go first and put pictures in chronological order, then students with word / date cards.
5. Examine if some cards need to be reordered.
6. Discuss other events that have happened during lifetime of tree.
7. Complete TPS activity on sheet.
8. Ask question – How could we determine age of tree without cutting it down?
9. Model how to calculate age of tree by measuring girth and dividing by formula specific for that type of tree. Students complete round robin activity finding girth and age of four trees. Examine ages from different groups – do dates correlate?
10. Look at how to measure height of a tree. Get students to estimate how to measure height of a tree. Model how to use a super sighter. Students return to groups of three or four and find height of all four trees. Rotate after five mins at each station.
11. Complete individual sheets to show type, species, girth, age, height and picture of a tree.

PLENARY

Share ages and heights of trees. Are results similar? What do you notice about deciduous and coniferous trees? Why do you think this is? Are any trees in your school grounds ancient?

OTHER IDEAS

1. Mad about Trees KS2 resource can be found on www.forestry.gov.uk
2. Oak trees provide a habitat for more than 2,000 different species. Challenge your children to research these different organisms

TWIG	TRUNK	LEAF
BARK	ROOTS	BRANCH
FRUIT	BUD	NUT
SEED	SOIL	

Tree Activity Two

MEASURING THE HEIGHT OF TREES

Estimate the height of four trees

1.

2.

3.

4.

Work in groups of four. Use the tree measurement materials to measure the height of all four trees.

Measurement

Difference

Measurement

Difference

TREE 1

TREE 3

TREE 2

TREE 4

TREE RECORD SHEETS

TREE	1	2	3	4
TYPE				
WIDTH				
AGE				
HEIGHT				
PICTURE				

Lesson Plans: Key Stage One and Two Water



Pond Dipping

Curriculum Areas

World Around Us
Numeracy
ICT

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- BECOME FAMILIAR WITH THE DIFFERENT ANIMALS WHICH LIVE IN THE POND
- USE THE POND SAFELY AND OBSERVE POND RULES

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- NAME AND IDENTIFY DIFFERENT ANIMALS LIVING IN THE POND
- DISCUSS HOW TO USE A POND SAFELY



MATERIALS

Pond, nets, containers, magnifying glasses, white trays, key describing pond animals.

INTRODUCTION

Talk about different animals they have seen in the pond previously. Discuss pond safety with the children.

DEVELOPMENT

1. Take the children to the pond.
2. Use nets and containers to pond dip.
3. Talk about the different animals and their features and use key to identify.
4. Can the children explain how the different animals are suitable to pond life? E.g. A pond skater has wide legs so it doesn't sink or tadpoles have a tail to swim.
5. Take pictures to record findings on a particular date. You could then compare this to another visit.

PLENARY

In the classroom, record your findings and talk about what the children have learned. Discuss changes compared to a different visit.

OTHER IDEAS

1. Children working in pairs to take their own pictures
2. Create a pictogram of animals observed
3. KS2 – develop a tree diagram to identify animals in the pond. If possible, KS2 children could pair up with younger children and use it to identify pond animals
4. School could make their own key to identify pond animals
5. Contact RSBP to set up a night vision camera to observe animals that visit at night

KS2 EXTENSION

- Visit the pond several times and count numbers of animals
- Use this information to develop pie-charts, percentages, bar-graphs
- Make a video of the animals in the pond
- Make a video or PowerPoint of how to use the pond safely and share with the school

Extension activities using the Pond

- COLLECT WATER, MINIBEASTS, FROGSPAWN, TADPOLES FROM THE POND AND BRING INTO THE CLASSROOM USING THE OBSERVATION TANK. CLOSELY OBSERVE GROWTH AND ACTIVITY OF ANIMALS IN THE WATER
- CREATE A DIGITAL DIARY OF THE GROWTH AND ACTIVITY
- USE A DIGITAL MICROSCOPE TO OBSERVE WHAT IS IN YOUR POND
- CHILDREN COULD WRITE A STORY IN FIRST PERSON AS AN INVERTEBRATE OR TADPOLE LIVING IN THE WILDLIFE POND AND THE DRAMAS IT FACES TO SURVIVE
- PLAY POND FOOD CHAIN OR FOOD WEB GAMES TO ENABLE CHILDREN TO APPRECIATE THE IMPORTANCE OF INVERTEBRATES
- POND POLLUTION - LEARN ABOUT 'INDICATOR' SPECIES AND FIND OUT WHICH OF THE FRESH WATER MINIBEAST ARE INDICATORS OF CLEAN WATER
- CREATE MINIBEAST POND CREATURES USING CLAY AND NATURAL MATERIALS FROM THE WILDLIFE AREA OR ART MATERIALS BACK AT SCHOOL



Bird Bath

Curriculum Areas

World Around Us
STEM

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- KNOW WHY IT IS GOOD TO HAVE A BIRD BATH AND HOW TO MAKE ONE
- NAME BIRDS IN THE SCHOOL GROUNDS THAT MIGHT USE IT

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- SUCCESSFULLY MAKE A BIRD BATH AND BE ABLE TO TALK ABOUT THE DIFFERENT STEPS

MATERIALS

Four bricks, a piece of open lawn or border, large shallow tray with sloping sides, stones or gravel, rain or tap water.

INTRODUCTION

Discuss birds that have been observed in your school grounds. Talk about anything you have got already to attract birds. Ask the kids if they have ever seen a bird bath before. Why would you want to have a bird bath?

DEVELOPMENT

Make your bird bath

1. Lay out four bricks and place the tray on top of the bricks
2. Put some pebbles or rocks into the bottom of the tray to give the birds grip
3. Put some water in the tray (try to keep it ice free in the winter by using a small ball)

PLENARY

Talk about what we did and why it is important for birds. Birds that aren't interested in food may still visit gardens where a good bath is available.

OTHER IDEAS

1. Build a bird bath at home and take a photograph to share with your classmates and display on your eco wall
2. Watch for seasonal birds using the bird bath (thrushes, swallows etc.)

NOTES:



A series of horizontal dashed lines for writing notes, set against a background illustration of a tropical beach scene. The illustration includes a large yellow sun, a blue sky, a sandy beach, and palm trees.

Lesson Plans: Key Stage One and Two Hedgerows



Planting a Hedgerow

Curriculum Areas

World Around Us
Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- NAME DIFFERENT TYPES OF PLANTS THAT WOULD MAKE A HEDGEROW
- NAME, OBSERVE AND TALK ABOUT DIFFERENT HEDGEROWS IN THE LOCALITY
- DISCUSS WHY YOU MIGHT PLANT A HEDGE



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- TALK ABOUT HEDGEROWS IN THE LOCALITY
- DISCUSS CHARACTERISTICS OF DIFFERENT TYPES OF HEDGEROWS AND WHERE YOU SEE THEM
- PLANT A HEDGEROW

MATERIALS

Plants, site, pictures of mature hedgerow.

INTRODUCTION

Go for a walk and observe hedgerows on the school grounds and surrounding area. Use sense to describe. Talk about different hedgerows and name. (Native hedgerows - beach hedge, hawthorn hedge, holly hedge.

Non natives – fuchsia, escallonia (coastal locations) privet, laurel (invasive) & leylandii (stay away from).

DEVELOPMENT

1. If you have dormant bushes, soak them in water for an hour before planting. Discuss why plants are dormant and when.
2. Talk about the site and why it is suitable for the hedgerow you have chosen.
3. Take the children out, dig a hole for each plant and carefully put them in giving special consideration to the roots. Gently cover them with soil and water well. Stake them with bamboo if necessary.

PLENARY

Talk about what you did and how to look after your hedge. How do we know it is a healthy hedge? How do we know if it needs help?

OTHER IDEAS

1. Children bring in pictures of hedgerows at home. Identify, name and make a display
2. Children could write instructions on how to plant a hedgerow which other classes could use

What's in our Hedge?

Curriculum Areas

World Around Us

Numeracy

Literacy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- IDENTIFY ANIMALS IN A HEDGEROW
- RECORD WHAT THEY FIND



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- USE A KEY TO IDENTIFY ANIMALS FOUND IN THE HEDGEROW
- MAKE A PICTOGRAM / BARGRAPH (DEPENDING ON ABILITY) TO SHOW RESULTS

MATERIALS

White sheet / tarpaulin, magnifying glasses, key.

INTRODUCTION

Talk about what you might find in the hedgerow. Discuss rules. Remind the children to stay quiet to ensure they don't frighten the animals. Observe from afar at the beginning for birds who might live in the hedge.

DEVELOPMENT

1. Shake the hedge and see what falls out onto the sheet.
2. Take time to observe and record what you have found using a tally chart.
3. Take pictures for a display.

PLENARY

Get the children to write about what they have found

Discuss anything unexpected or particularly interesting

OTHER IDEAS

1. Make a class story using characters that might live in a hedge
2. Get the children to develop their own stories set in a hedge
3. Create a recipe for a healthy happy hedge
4. Compare what you find in a native and non-native hedge

Pruning a Hedgerow

Curriculum Areas

World Around Us
Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- UNDERSTAND THE PROCESS OF PRUNING AND WHEN TO DO IT
- NAME PLANTS THAT NEED TO BE PRUNED

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO

- TALK ABOUT PRUNING, WHY AND HOW YOU DO IT



MATERIALS

Secateurs, hedge to prune (Prune in Autumn).

INTRODUCTION

Go for a walk and observe hedgerows on the school grounds and surrounding area. Use sense to describe. Talk about different hedgerows and name. (Native hedgerows - beach hedge, Hawthorn hedge, holly hedge.

Non natives – fuchsia, escallonia (coastal locations) privet, loral (invasive) & leylandii (stay away from).

DEVELOPMENT

1. If you have dormant bushes, soak them in water for an hour before planting. Discuss why plants are dormant and when.
2. Talk about the site and why it is suitable for the hedgerow you have chosen.
3. Take the children out, dig a hole for each plant and carefully put them in giving special consideration to the roots. Gently cover them with soil and water well. Stake them with bamboo if necessary.

PLENARY

Talk about what you did and how to look after your hedge. How do we know it is a healthy hedge?
How do know if it needs help?

OTHER IDEAS

1. Children bring in pictures of hedgerows at home. Identify and name and make a display
2. Children could write instructions on how to plant a hedgerow and other classes could use

INFORMATION

Most evergreen formal hedges like to be trimmed two or three times a year, while they're actively growing. Conifer hedges such as leylandii need regular pruning or these fast-growers will soon outgrow their location.

Pruning informal hedges depends on when they flower. Lavender, fuchsia, roses and other plants that flower on the current year's wood are best pruned in early to mid-spring, while those that flower on old wood, such as forsythia, deutzia and berberis, should be pruned when the blooms fade.

Extension to Hedgerow Lessons



- PICK FRUITS FROM YOUR HEDGEROW AND CUT. OBSERVE THE INSIDE OF THEM AND DISCUSS. TASTE THE FRUIT AND COMPARE TO FAVOURITE FRUITS
- MAKE JAM USING JAM SUGAR AND FRUITS FROM YOUR HEDGE
- MAKE A FRUIT COMPOTE USING THE SAME WEIGHT OF CASTER SUGAR TO FRUIT. COOK TOGETHER IN A PAN
- MAKE A CRUMBLE OR A SPONGE
- ESTIMATE THE WEIGHT OF FRUIT BEFORE USING THE SCALES
- USE THE BERRIES IN ART LESSONS
- PHOTOGRAPH WILD ART BEFORE EATING / COOKING THE FRUIT
- USE CLAY / MODEL MAGIC MATERIAL TO RECREATE BERRIES AT DIFFERENT STAGES OF GROWTH AND RIPENESS
- THROUGH THE YEAR, PHOTOGRAPH YOUR HEDGE SO YOU CAN SEE IT GROW AND DEVELOP, AND WATCH THE FRUIT RIPEN
- CREATE A MAP OF YOUR SCHOOL GROUNDS DETAILING EACH HEDGEROW AND THE PLANTS FOUND IN IT

Lesson Plans: Key Stage One and Two Creative Activities



All the Senses

Curriculum Areas

World Around Us
The Arts

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- USE THEIR SENSES TO EXPLORE THE OUTDOORS
- UNDERSTAND HOW LIVING THINGS USE COLOUR AND SMELL TO THEIR ADVANTAGE

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- IDENTIFY COLOURS FOUND IN NATURE
- RECORD SOUNDS FOUND IN THE OUTDOORS
- CLASSIFY SMELLS IN THE OUTDOORS

MATERIALS

Artists palettes, Dulux cards, double sided tape, iPod template, mint leaves, tester strips, bottle of violet aromatherapy oil.

INTRODUCTION

Play name game. Students introduce themselves to teacher and what animal they are like. Pass toy / ball for each student to take turn. Name of animal must match first letter of your name. You must also make the sound and actions of animal E.g. My name is Ciaran and I like cats – meow! At end of introduction all students do name, sound and action together.

DEVELOPMENT

SIGHT

Give students Dulux cards and colour palettes. As a group of two explore school grounds to find examples of these colour shades. Stick colour shades on your palette.
On return examine colours found / not found. Explore why plants have different colours / why colours change with seasons.

SOUND

Give students IPOD templates. Find a space to listen to sounds that you can hear. Create a symbol for each sound and record on IPOD. Try to record as many sounds as possible
On return to group – classify sounds – man made, natural and made by living things. Use chalk to record sounds you heard on wall / ground.

TASTE / TOUCH

Give students a leaf of mint. Rub it between hands and warm it up – smell the scent. What does it smell of? (chewing gum?) Go around the school grounds and rub different scents in your hands. Record fragrance on tester strips. Return to group and swap fragrances.

SMELL

What do plants use smell for? – use scent to attract pollinators / repel predators. Our sense of smell is linked to oldest part of brain – limbic system – centre for emotions and memory. This part of brain is used for basic survival – detects burning / rotting food. Sense of smell also connected to memory. If you use scents when learning your spellings you will remember the word lists, how to spell them more easily and remember them for longer (smell of violet) give example. Sense of smell is the last sense to go in Alzheimer's disease and often used in its treatment.

PLENARY

How did we explore the outdoors today? Discuss with a partner three things you have learned. What senses did we use? How do living things use colour and smell to their advantage?

OTHER IDEAS

1. Complete an outdoor obstacle course (blindfolded, if applicable) to investigate balance
2. Wild foraging berries, nuts, wild strawberries, crab apples and explicitly teach the dangers of eating unknown plants
3. Use flowers to crush the petals and use the colour to dye materials



Measuring the Great Outdoors

Curriculum Areas

Numeracy

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- MEASURE THE AREA AND PERIMETER OF THE HURLING/FOOTBALL PITCH USING A TRUNDLE WHEEL

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- CONFIDENTLY MEASURE THE SIZE OF THE PITCH USING THE KNOWLEDGE THEY HAVE PREVIOUSLY LEARNT ABOUT AREA AND PERIMETER

MATERIALS

Maths books, trundle wheel, hurling/football pitch.

INTRODUCTION

Explain to the children they will be going to the pitch to measure the area and perimeter of the pitch using a trundle wheel. The children will walk to the pitch safely in a group. Recap on what has been learnt already about area and perimeter and remind how to calculate. Complete a few examples.

DEVELOPMENT

1. Sort the children into different groups and ask them to measure the pitch.
2. Children will come together to discuss if they all got the same results and did they all start at the same spots?
3. Did everyone go right to the edge of the fence?

PLENARY

Map out one quadrant of the pitch and count how many daisies are growing there. Then, work out how many daisies approximately are in the whole field. Extend to other areas in the school grounds.

OTHER IDEAS

1. Create a map drawn to scale of the school grounds using key words such as birds-eye view, symbols, key, etc
2. Using said plan, create an orienteering route for others to follow
3. Undertake a journey in your local area. Understand the potential hazards of the journey and recognise the safety and environmental considerations
4. Create a labyrinth using ropes outdoors for example; in a spiral shape. Investigate different entrance and exit points

Shapes in Nature

Curriculum Areas

Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- EXPLORE DIFFERENT 2D AND 3D SHAPES AROUND THE PLAYGROUND
- IDENTIFY WHY CERTAIN THINGS ARE MADE IN THOSE SHAPES



SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO

- IDENTIFY A NUMBER OF DIFFERENT SHAPES AND BE ABLE TO EXPLAIN WHAT THEY ARE AND WHY THEY THINK THEY ARE MADE THAT SHAPE. E.G. TYRE - CIRCLES AS THEY ARE USED ON CARS SO NEED TO BE ABLE TO GO ROUND WHEN DRIVING

MATERIALS

Maths books, Playground.

INTRODUCTION

Children will be introduced to the learning intentions which are identifying 2D and 3D shapes around the playground. They will be told to look carefully outside for all different kinds of shapes, any similarities they see and record their findings in their groups.

DEVELOPMENT

1. Children will go outside in their groups and record all the shapes they see.
2. While they are working in their groups, the teacher will observe what the children have found and talk to them about it.
3. When the children have had time to identify the shapes, bring them together and ask what they have found so far.
4. Discuss why these shapes have been used and if we think that's the best shape for its use.
5. Children can then go and find other shapes they may have missed.

PLENARY

The children will come together and discuss all the 2D and 3D shapes found. Discuss if there were more 2D shapes than 3D and vice versa and discuss why this might be.

OTHER IDEAS

1. Symmetry investigations – find shapes with 1,2,3 lines of symmetry in the playground
2. Use the Photobooth App on I-pad to take photos and make mirror images using both vertical and horizontal axis of symmetry
3. Use sticks to make shape nets
4. Investigating angles in nature for example a fork in a branch or sticks to make right angles. To extend, include protractor work.

Stick Shapes

Curriculum Areas

Numeracy

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- WORK TOGETHER USING NATURAL MATERIALS TO CREATE DIFFERENT 2D SHAPES

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- WORK TOGETHER AGREEING WHAT SHAPE THEY ARE GOING TO MAKE AND HOW
- ANSWER QUESTIONS ABOUT THEIR SHAPE AND ITS PROPERTIES

MATERIALS

Long grass, twigs, branches, stones, twine, playground.

INTRODUCTION

The children will be going outside working together to create a range of different 2D shapes using natural materials.

DEVELOPMENT

1. Children will break into their groups creating different shapes.
2. Teacher will walk around each group asking what shapes they are making, what can they tell you about it?
3. How many different kinds of triangles can they make?
4. How do they know the shape they have made is a triangle?
5. Can they make a shape with four corners?
6. All of the sides must be different lengths.
7. Are there any lines of symmetry?

PLENARY

Children will come together discussing what shapes they made and what they looked like, e.g. sides, angles, if there are any lines of symmetry etc.

OTHER IDEAS

1. Move on to building 3D shapes using sticks and twine to secure
2. Compose an outdoor Maths Trail including questions from all areas of learning
3. Create a 2D / 3D shape picture using natural materials
4. Make geometric patterns with pebbles

Wild Art



Curriculum Areas

World Around Us
The Arts

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- APPRECIATE THE WORK OF THE WELL-KNOWN ARTIST 'ANDY GOLDSWORTHY'
- USE NATURAL MATERIALS TO EXPRESS AN IDEA IN ART

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- COMMENT ON THE WORK OF ANDY GOLDSWORTHY
- USE NATURAL MATERIALS TO MAKE A PICTURE
- TALK ABOUT THEIR OWN CREATIONS



MATERIALS

Sticks, stones, leaves, flowers, pine cones, conkers, grass, berries, nuts, a3 paper, weighing stones.

INTRODUCTION

Show the children examples of the work of the environmental and land artist Andy Goldsworthy. His ethos is to create both temporary and permanent sculptures using natural objects inspired by the environment. Discuss patterns, colours, shapes in his work.

DEVELOPMENT

1. Children will forage for natural materials that they would like to use in their art.
2. They will then assemble these materials into their own piece of natural art.
3. Let the children explore their own imagination and other underlying abstract concepts.

PLENARY

Children will come together discussing what art they have made. Peer-assessment of the children's creations. Take photos of completed work.

OTHER IDEAS

Using natural materials you could also make:

1. Puppets
2. Masks
3. Hats
4. Dream catchers



An Autumn Palette

Curriculum Areas

World Around Us
The Arts

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- USE THEIR SENSES TO EXPLORE THE OUTDOORS
- MIX PAINT TO DISCOVER NEW COLOURS WHICH THEY HAVE FOUND IN NATURE

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- IDENTIFY COLOURS FOUND IN NATURE
- RECORD SOUNDS FOUND IN THE OUTDOORS
- CLASSIFY SMELLS IN THE OUTDOORS



MATERIALS

Paint palettes, paint, paintbrushes, A3 paper and collection of coloured outdoor resources.

INTRODUCTION

Play name game. Students introduce themselves to teacher and what animal they are like. Pass toy / ball for each student to take turn. Name of animal must match first letter of your name. You must also make the sound. E.g. My name is Ciaran and I like cats – meow! Discuss learning intentions with the children.

DEVELOPMENT

1. Give students artist's palettes. Use large palette example to explain how an artist uses a palette. Nature also has many colours – work individually and collect as many different colours in nature as you can find. You only need to take small pieces of each plant / leaf.
2. On return look at shades of colours – what colours do you have / not have? What season would you get these colours?
3. Give cardboard cut-out of IPOD. When I say go – move to a quiet space within the boundaries and listen to all the sounds you can hear. On back of IPOD record what sounds you can hear – use pictures / icons. Minimum of four.
4. Return to group – what sounds did they hear? Discuss in groups of two or four. Share as a group. Explain about special smelling potion. Bring out bottle and rub on each student's nose. Get students to go and smell things in nature – this potion helps them smell things ten times more powerfully! Bring students back and tell partner what they could smell.
5. On return to the classroom, free exploration with paint palette to recreate autumn shades on A3 paper.

PLENARY

How did they explore the outdoors today? What senses did they use? What did they learn by using their senses? What sense did they not use?

Revisit learning intentions with the children.

OTHER IDEAS

1. Make a woodland scene on rolled out wallpaper using natural materials as a whole group project

Log Pile

Curriculum Areas

World Around Us

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- UNDERSTAND THE NEED FOR DIFFERENT HOMES AND ANIMALS IN OUR GARDEN
- KNOW WHY A LOG PILE IS ATTRACTIVE TO LOTS OF BUGS
- MAKE AND TALK ABOUT THEIR LOG PILE

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- IDENTIFY MINIBEASTS THAT WOULD USE A LOG PILE (BEES, ANTS, WOODLOUSE, BEETLES)
- SUCCESSFULLY BUILD A LOG PILE

MATERIALS

Spade, logs and branches, leaves, moss, mulch.

INTRODUCTION

Divide the children into groups and divide the materials you have. Explain the safety issues.

DEVELOPMENT

Make your log pile

1. Find a shady spot and dig a hole for your wood pile
2. Pile up the logs in the hole, the biggest at the bottom
3. Add smaller branches and twigs on top
4. Drop leaves, moss and mulch in to fill up the spaces

PLENARY

Talk about what we did and what we learned.

After a few days, observe what minibeasts you find in your log pile.



OTHER IDEAS

1. Make a class story using characters that might live in a log pile
2. Get the children to develop their own stories set in a log pile
3. Create a recipe for a healthy thriving log pile

Rock Pile

Curriculum Areas

World Around Us
Numeracy

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- KNOW WHY WE ARE GOING TO MAKE A ROCK PILE
- NAME DIFFERENT ANIMALS THAT MIGHT USE A ROCK PILE

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- MAKE A ROCK PILE OF THEIR OWN
- EXPLAIN THE BENEFITS OF A ROCK PILE



MATERIALS

Rocks and stones of different sizes, spade, gloves.

INTRODUCTION

Divide children into small groups and explain that each group is going to make a small rock pile in different areas of the school grounds. Talk about the best position for the rock piles (under trees and hedges, near the pond. Do not make one on open grass as it is too exposed).

DEVELOPMENT

1. Children dig a small hole
2. Place the bigger rocks at the bottom and fill the space with smaller stones

PLENARY

A few days later, take time to observe any changes. Are birds visiting? Can you see any bugs or spiders?

OTHER IDEAS

1. Compare the rock piles in different places
2. Build rock piles of different sizes and observe differences

NOTES:



Lesson Plans: Key Stage One and Two Biodiversity



Bioblitz

Curriculum Areas

World Around Us
Thinking Skills

Length: 45 mins



LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- IDENTIFY ALL LIVING THINGS IN AN AREA WITHIN A SET PERIOD OF TIME
- WORK IN A GROUP TO OBSERVE AND RECORD

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- RECORD ALL LIVING THINGS IN DIFFERENT AREAS OF THE SCHOOL GROUNDS
- TAKE ON A ROLE WITHIN THE GROUP

MATERIALS

Strips of card, metre stick, tally chart, key, camera.

INTRODUCTION

Divide the children into groups. Each group to make a quadrat using 1 metre length of card. Discuss why each square has to be the size.

DEVELOPMENT

1. Take your squares out to different places around the school.
2. Observe all living things within them for five minutes.
3. Children take turns to record what is found while others observe.

PLENARY

Bring results together and talk about where most living things were seen and why. Research any animals that you did not recognise. Talk about how you could encourage other animals to the school site.

OTHER IDEAS

1. Complete activity in each season and compare changes
2. Change one variable at a time and introduce the concept of fair testing
3. Concentrate on the different types of vegetation found on your school site e.g. daisies, buttercups, clover, moss, dandelions

Wildflower Seed Collecting

Curriculum Areas

World Around Us
Thinking Skills

Length: 45 mins

LEARNING INTENTIONS

THE CHILDREN SHOULD BE ABLE TO:

- IDENTIFY DIFFERENCES BETWEEN WILDFLOWER SEEDS
- UNDERSTAND THE LIFE CYCLE OF A WILDFLOWER
- KNOW HOW TO SUCCESSFULLY COLLECT AND STORE WILDFLOWER SEEDS UNTIL THE FOLLOWING YEAR

SUCCESS CRITERIA

CHILDREN WILL HAVE ACHIEVED THE LEARNING INTENTIONS IF THEY ARE ABLE TO:

- COLLECT SEEDS FROM WILDFLOWERS AND IDENTIFY DIFFERENCES
- RECOUNT THE LIFE CYCLE OF A WILDFLOWER

MATERIALS

Wildflowers, envelopes, labels. Camera

INTRODUCTION

Discuss the life cycle of wildflowers with the children. Talk about seed dispersal and the different methods. Explain that they will help the plants to survive by collecting their seeds.

DEVELOPMENT

1. Give out the resources and take the children outside to the meadow.
2. Shake the flower heads and collect seeds in a tray.
3. Encourage children to observe the shape, colour, size of the seeds.
4. Use a microscope to observe them more closely.
5. Label envelopes with flower names for planting the following year.

PLENARY

Talk about the importance of wildflowers and what they enjoy about their meadow.

Explain to the children that in the spring, they will plant their seeds in the classroom and when they are the correct size, they will transfer them to the meadow.



OTHER IDEAS

1. Complete seed art pictures
2. Create a seed mosaic using wildflower seeds
3. Investigate different forms of seed dispersal in trees and plants on your school site
4. Plant your wildflower seeds in different areas of the classroom and observe differences
5. Press and dry wildflowers to create your own wildflower key

Using the Beach for Outdoor Learning



NUMERACY

- Measure the time between the waves using stopwatches
- Count pebbles, shells in twos, fives, tens
- Make a repeating pattern using pebbles, shells, stones
- Discuss different shapes found at the beach

LITERACY

- Take a clipboard and write a poem about how the beach makes you feel
- Letter formation in the sand
- Write a thank you letter (Santa, Mother Nature, birds, the tooth fairy etc.) in the sand
- Story time at the beach
- Write a seashore code

THE ARTS

- Look for interesting patterns on stones from wave action or possibly fossils
- Listen to all the sounds that you can hear and draw
- Walk in the sand barefoot and discuss the printing and how it feels
- Make a picture using shells, seaweed, driftwood, petals etc.
- Look for pieces of driftwood and talk about its shape and colour. Where might it have come from?

WORLD AROUND US

- Observe the beach at full tide and when the tide is out and compare
- Look in rock pools if accessible
- Take a sample of sea water. Take it back to school and filter it to remove the sand. Then put it on the radiator and in a few days, you will have salt crystals.
- Investigate the high tide line. What are the differences between high tide line and the rest of the beach?
- Look for and discuss different kinds of seaweed; different shapes, colours.
- Look for empty shells (size, colour, shape) Which animals used to live in these shells?
- Examine the sand, its texture and colour. Look carefully at it with a magnifying glass.

CONSTRUCTION

- Design a kite and fly on the beach
- Build a den on the beach (bring bamboo canes, sand bags & tarpaulin)

PDMU

- Talk about beach safety. Look at beach warning signs and flags and the importance of buoyancy aid. Find more information at <https://rnli.org/>

ACTIVITY BASED LEARNING

- Take on the role of a life guard, coast guard or RNLI volunteer.
- In the sand tray, re-create a sea shore environment in the sand tray
- Create a beach themed tuff spot



NOTES:



ID Charts



Native Wildflower Id

KEY: ENGLISH
GAELIC



RAGGED ROBIN
LUS SÍODA



FIELD SCABIOUS
CAB AN GHASÁIN



RED CAMPION
COIREAN COILLEACH



LESSER / COMMON KNAPWEED
MÍNSCOTH



WHITE CLOVER
SEAMAIR BHÁN



BIRDS FOOT TREFOIL
CROBH ÉIN



RED CLOVER
SEAMAIR DHEARG



LADY'S SMOCK / CUCKOO FLOWER
BIOLAR GRÉAGÁIN



SELF HEAL
DUÁN CEANNCHOSACH

Native Wildflower Id

KEY: ENGLISH
GAELIC



COMMON SPOTTED ORCHID
NUACHT BHALLA



OX EYE DAISY
NÓINÍN MÓR



YELLOW RATTLE
GLIOGRÁN



DEVILS BIT SCABIOUS
ODHRACH BHALLACH



LESSER CELANDINE
GRÁN ARCÁIN



MEADOW BUTTERCUP
FEARBÁN FÉIR



PIGNET
CÚLARÁN



COMMON DOG VIOLET
FANAIGSE



COMMON FIELD SPEEDWELL
LUS CRÉ GARRAÍ

Tree Id

KEY: ENGLISH
GAELIC



HAWTHORN FRUIT AND LEAVES
SCEACH GHEAL



ALDER
FEARNÓG



CRAB APPLE
CRANN FIA-ÚLL



ASH
FUINSEOG



BEECH
FEÁBHILE



ASPEN
CRANN CREATHACH



SYCAMORE
CRANN BÁN



SILVER BIRCH
BEITH GHEAL



HOLLY
CUILEANN



BIRD CHERRY
DONNROISC

Tree Id

KEY: ENGLISH
GAELIC



BLACKTHORN



ROWAN
CAORTHANN



WILLOW
SAILEACH



SCOTS PINE
GIÚIS GHAELACH



OAK
DAIR



ELM
LEAMHÁN



HAZEL
COLL



WHITEBEAM
FIONNCHOLL



WILD CHERRY
CRANN SILINÍ FIAIN



SPINDLE
FEORAS

NOTES:

Further Resources

FURTHER TO THE TEACHING PLANS PROVIDED IN THIS RESOURCE YOU WILL FIND A NUMBER OF OTHER RESOURCES TO HELP YOU WITH YOUR OUTDOOR LEARNING WITHIN SCHOOLS BELOW:



[HTTP://ARK.IE/DOWNLOADS/JUNIOR_POLLINATOR_PLAN_FOR_WEB2.PDF](http://ark.ie/downloads/junior_pollinator_plan_for_web2.pdf)

[HTTP://WWW.BIODIVERSITYIRELAND.IE/WORDPRESS/WP-CONTENT/UPLOADS/JUNIOR-POLLINATOR-PLAN-IRISH-FINAL.PDF](http://www.biodiversityireland.ie/wordpress/wp-content/uploads/junior-pollinator-plan-irish-final.pdf)

[HTTP://WWW.BIODIVERSITYIRELAND.IE/PROJECTS/IRISH-POLLINATOR-INITIATIVE/ALL-IRELAND-POLLINATOR-PLAN/SCHOOLS/](http://www.biodiversityireland.ie/projects/irish-pollinator-initiative/all-ireland-pollinator-plan/schools/)

[HTTP://WWW.SNH.GOV.UK/ABOUT-SCOTLANDS-NATURE/RESOURCES-FOR-TEACHING/CLASS-ACTIVITIES/PRIMARY/](http://www.snh.gov.uk/about-scotlands-nature/resources-for-teaching/class-activities/primary/)

[HTTP://NIFSA.ORG.UK/WHAT-WE-DO/](http://nifsa.org.uk/what-we-do/)

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Acknowledgements

We would like to thank the staff from all the schools who took part in this project and provided their expertise and passion throughout these past few years. Thanks to Gretta Mc Carron, a community scientist from Queen's University Belfast for providing the OPAL training.

We would like to thank Gaelscoil an Chaistil, Ballycastle and St Patrick's Primary School, Glenariff for hosting meetings.

Thanks to Sinéad Uí Chearnaigh (Gaelscoil an Chaistil, Ballycastle), Anne McDaid (St Patrick's Primary School, Glenariff) and Ashleigh Moran (Seaview Primary School, Glenarm) who compiled the final teaching plans.

Thanks to all the teachers and extended communities from the schools throughout the Glens of Antrim who contributed to this work, and also to the volunteers who helped install the habitat equipment at the schools.

A particular thanks must go to the Heritage Lottery Fund, who are the main funder of this project.

Finally we would also like to thank the Woodland Trust who supplied trees and hedging as part of this programme.



