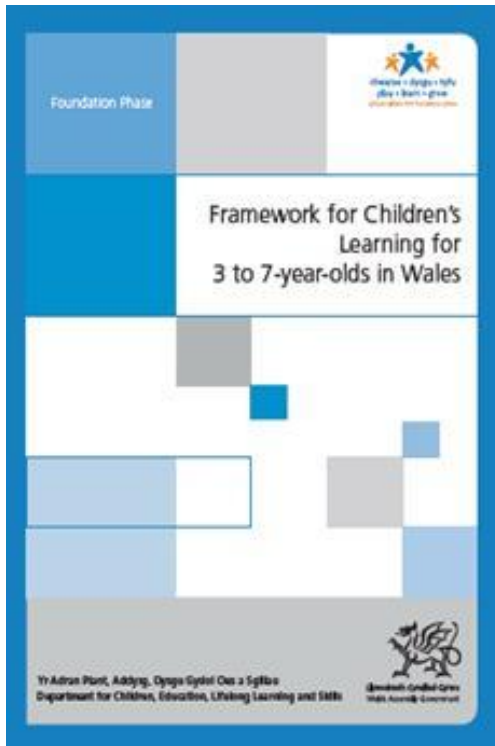
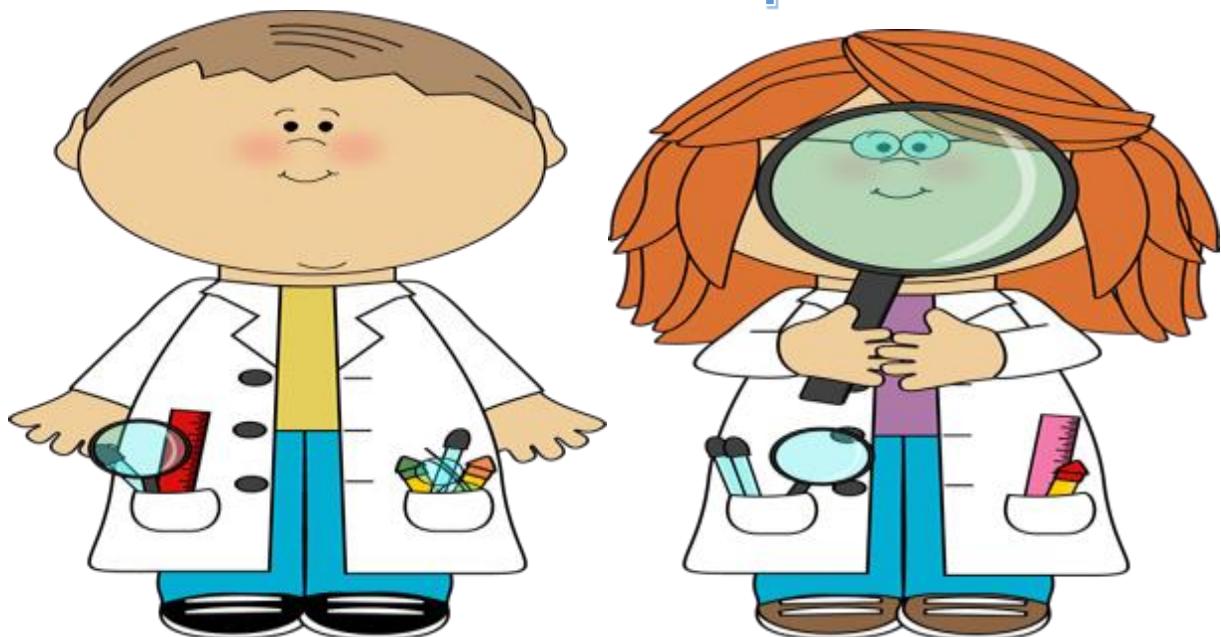


A Cross Phase Approach to Science Based Activities



P.S.D, Well-being and Cultural Diversity.
Physical Development.
Creative Development.



Introduction

'Once people gain a good sense of how science operates – along with the key inventory of key science concepts as a basis for learning more later – they can follow the science adventure story as it plays out during their lifetimes.' - American Association for the Advancement of Science.

Aim

To develop a cross phase approach to scientific based activities by identifying opportunities to further enhance enquiry and investigational skills of the pupils through integrated, pertinent and purposeful tasks; which have been identified to compliment and reinforce learning in accordance with Foundation Phase pedagogy.

Areas

Whereas scientific based activities have a natural association with Knowledge and Understanding in the Foundation Phase, there are many other areas across the curriculum where such skills can be developed, complimented and reinforced.

Knowledge and Understanding is not directly referenced due to its proximity with science and will often have investigational principles at its core.

Language (both English and Welsh) will develop throughout activities as the pupils are exposed to age / stage appropriate vocabulary (see Age / Stage Appropriate Vocabulary Document).

Mathematical development will also be addressed through problem solving, recording and interpreting results when undertaking science based activities.

Activities

The activities identified have been created in line with the Foundation Phase Framework and are referenced to the aspects outlined in:

- Personal and Social Development, Well-being and Cultural Diversity.
- Physical Development.
- Creative Development.

Activities are to be used as ideas and stimuli which may be used as focussed, enhanced or continuous tasks when delivering sessions. **These are not lesson plans and do not guarantee coverage of the statutory requirements of the Foundation Phase.**

Some activities may require tailored **risk assessments**, which are to be undertaken in accordance with school policy.

Although the Foundation Phase spans (up to) four academic years, all activities can be adjusted to the ability and age of the child / cohort.

Foundation Phase Science Activities

A Cross Phase Approach to Science Based Activities

Personal and Social Development, Well-Being and Cultural Diversity

Personal Development

- 1) Caring for a class goldfish
- 2) Frogspawn and tadpoles

Social Development

- 1) Snuggly Squirrel
- 2) Christmas in a country far away

Well Being

- 1) Self-identity / self-esteem
- 2) Painting of Maisha
- 3) Physical well-being
- 4) Snack time

Learning to Learn

- 1) Making a scarecrow
- 2) The sad train

Knowledge and Understanding of the World

Development of Skills

*) See table

Places and People

- 1) The airport

Time and People

- 1) Life in the 1960's

Myself and Other Living Things

- 1) Living eggs

Myself and Non Living Things

- 1) Pasta and Pizza

- Observing
- Comparing
- Classifying
- Enquiring
- Exploring and experimenting
- Listening
- Making decisions
- Predicting and testing
- Reflecting
- Describing
- Sorting and grouping
- Sequencing
- Asking/answering questions
- Investigating
- Thinking
- Solving problems
- Recording
- Communicating
- Evaluating

Physical Development

Physical Play

- 1) Moving like mini-beasts
- 2) Spheres in a bucket

The Development of Physical Skills

- 1) Gross motor skills
- 2) Responding to an autumn poem
- 3) Fine motor skills

Health and Safety including Healthy Eating

and Well Being

- 1) Safety issues
- 2) Healthy living
- 3) Healthy eating
- 4) Making leek and potato soup

Creative Development

Creative Development

- 1) The developing child
- 2) Painting a mural
- 3) A foundation phase garden

Art, Craft and Design

- 1) Daffodils

Music

- 1) Junk music

Creative

- 1) We are dinosaurs
- 2) The musical pantomime

Personal and Social Development, Well-Being and Cultural Diversity

Personal Development

1) Caring for a Class Goldfish

Context	Stimulus	Suggested Activity
Where do goldfish live?	What makes a good goldfish bowl?	Different container types – porous / non-porous; transparent / opaque; small / large, etc.
Where do pets live?	Why don't dogs live in goldfish bowls? Why don't goldfish live in hamster cages?	Sorting and classifying activities / Venn diagrams.
How do animals move?	Which animals move like me?	Split pin jointed templates / introduction to skeletons.
Our Pets	Which pets do we have at home? Do lions make good pets?	Pictograms / Justifying answers.
What do goldfish eat?	Would goldfish like school dinners? What is in my lunchbox?	Making 'fish flakes' – size / colours.
What is this?	Do all animals look the same?	Animal skeletons / silhouettes (shadow puppets). Animals in blind / feely bags.
Do goldfish sleep?	Why have goldfish always got their eyes open?	How long can I keep my eyes open for without blinking. Mirrors / stopwatches.
How do goldfish breath underwater?	Do goldfish ever come up for air?	Lungs and gills / balloons above and under water.
Do goldfish sink or float?	What would happen if a goldfish stopped swimming?	Sinking and floating / water displacement. Predicting and testing.
Do goldfish talk?	How do goldfish know what each other think?	Classifying, describing and investigating animal sounds.
Do goldfish like warm or cold water?	In what sorts of temperatures do goldfish swim?	Predicting, discussing, feeling, describing and measuring the temperature of water – thermometers.

Personal and Social Development, Well-Being and Cultural Diversity

Personal Development

2) Frogspawn and Tadpoles

Context	Stimulus	Suggested Activity
What is frogspawn?	Can I make frogspawn?	Bubble wrap, buttons, paint, play dough, junk materials. Finding things in jelly.
What will happen to the frogspawn?	What do I think will happen to the frogspawn?	Early prediction and communication skills.
What happens to frogspawn?	Does it stay as frogspawn?	Lifecycle of a frog / animals / humans – storyboards and diagrams.
Did I come from frogspawn?	Are all baby animals the same?	Varieties of gestation (eggs, spawn, live birth) / Baby animals.
Where do frogs live?	Where is frogspawn found?	Habitats – Making animal habitats with sand / twigs / straw / Lego, junk materials, etc.
Am I like a frog?	What are the similarities and differences between frogs and humans?	Anatomy and key body parts of humans.
Are all frogs green?	Do frogs have different colour skin like humans do?	Mixing paint to make secondary / tertiary colours to match the different species of frogs. Classification / sorting activities.
Is a frog like a butterfly?	Are frogs and butterflies similar?	Compare the life cycles and stages of spawn – frogs with eggs – butterflies.
What is frogspawn made from?	Can I get a better look?	Using magnifying glasses to look at frogspawn. Describe / communicate observations and changes.
How is frogspawn like jelly?	How is jelly made?	Making jelly from powder and concentrate / raisins for spawn. Irreversible changes.

Personal and Social Development, Well-Being and Cultural Diversity

Social Development

1) Snuggly Squirrel

Context	Stimulus	Suggested Activity
Are all squirrels the same?	Do all squirrels look and behave in the same way?	Sorting / matching / classifying and describing different types of squirrels.
Where do squirrels live?	Do all squirrels live in trees?	Observing and making habitats. Create habitats for toy squirrels (of different sizes) using natural materials.
What do squirrels eat?	Are all seeds / nuts the same?	Growing different types of seeds.
Can pine cones tell the weather?	What happens to pine cones in different types of weather?	Observe / describe changes to pine cones in warm / cold and dry / wet conditions.
Do squirrels wear shoes?	Are all animal footprints the same?	Describe, classify and sort animals according to footprints. Predict which footprints / animals match.
In which trees can we find squirrels?	How do we know which trees are which?	Describing, matching and classifying leaves – trees.
How many animals can be found in trees?	Which other animals live in trees?	Habitats and wildlife – lead to mini-beast hunt.
How do sycamore seeds float to the ground?	How are seeds like helicopters?	Throwing and describing sycamore seeds – comparisons to helicopters and other seeds.
When do squirrels sleep?	What is hibernation?	Sorting and classifying animals that hibernate.
What is in the woods?	What can I see on a nature walk?	Predict, observe, discuss and record what they see on a nature walk.

Personal and Social Development, Well-Being and Cultural Diversity

Social Development

2) Christmas in a Country Far Away

Context	Stimulus	Suggested Activity
How do fairy lights work?	Can I make the lights come on?	Making simple circuits – guided / independently.
Which star did the wise men follow?	Are all stars the same?	Using telescopes / binoculars / and magnifying glasses to look at objects. Solar system based tasks.
How did the wise men cross the desert?	Why did they use camels?	What objects are useful for carrying water? – Water tray activities. Camels in sand tray to recreate journey.
Do all stars shine?	Does the moon let off light?	Classifying light sources. Reflection activities.
What is in the sky?	Why does the shape of the moon change?	Phases of the moon.
Why are candles important at Christmas time?	What happens to a candle when it is lit?	Reversible and irreversible changes – Prediction / description and observation skills.
What is snow?	Can I make snow?	Reversible and irreversible changes using powdered snow / shaving foam – Prediction / description and observation skills.
Where does Father Christmas live?	What is it like in the North Pole?	Freezing and melting (polar animals in ice cubes) – Reversing and irreversible changes. Prediction, observation and description skills.
Can I make my star / decoration sparkle?	What materials are best?	Use a range of materials to decorate stars to make them shine / sparkle.
Do reindeer fly?	How do Father Christmas' reindeer fly?	Discuss and select which other animals could help Father Christmas if his reindeer were ill – classification.
Can I guess the gift?	What senses can I use to help me?	Guess the wrapped-up gift using prediction, description and observation skills.
What happened on that starry night?	How was the manger lit by the stars?	Shadow puppets to retell story and discuss observations.

Personal and Social Development, Well-Being and Cultural Diversity

Well Being

1) Self Identity / Self Esteem

Context	Stimulus	Suggested Activity
Who am I?	How am I similar / different to others?	Using mirrors to identify and describe features. Classification of features – hair / eye colour to populate pictograms / graphs.
What am I made of? (i)	What body parts do I have on my outside?	Describe and investigate the use of different limbs. Recall of their names and uses.
What am I made of? (ii)	What body parts do I have on the inside?	Describe and investigate internal organs. Recall main organs and their functions.
Why are we some people big and some small?	Do we all grow at the same speed?	Measure, compare and represent heights of children in the class.
Do we all have the same sized hands / feet?	How are we similar (number of digits) / different (span and size)?	Measure, compare and represent foot sizes / hand spans of children in the class.
When will I be old enough?	Will I always be a child?	Life cycle of humans.
Is that my shadow?	How can I recognise my shadow?	Create, discuss and record different shaped shadows created by the children.
What can I do?	How do my senses help me?	Activities using senses to predict, describe, observe and reflect (feely bags, blindfolds, headphones, scents, food tasting, etc)

Personal and Social Development, Well-Being and Cultural Diversity

Well Being

2) Painting of Maisha

Context	Stimulus	Suggested Activity
Which colours can I make using paint?	Which colours can be made by mixing paint?	Colour mixing – reversible and irreversible changes.
Is ice always clear?	Can I change the colour of ice?	Predict, observe and record what happens to coloured ice as it melts – on paper / in water.
Can I separate jelly?	Can jelly colours be kept apart?	Predict plan and discuss setting traffic light coloured jelly. Create mixed and separate coloured jelly.
Can I separate ice?	Can ice lolly colours be kept apart?	As above but freezing coloured water in stages as opposed to jelly.
Which colours form a rainbow?	How are rainbows formed?	Evaporation / drying activities – Prediction, observation and recording skills.
Can I change the colour of water?	What disappears and changes the colour of the water (dissolves) and what does not?	Dissolving activities / effervescent stimulants (bath bombs, vitamins, etc), paints, flour, sand, etc.
Does water mix with all liquids?	Can coloured liquids keep themselves separate when mixed with water?	Predict, observe and record what happens when oils / marbling paints are put in water.
What is a kaleidoscope?	How does a kaleidoscope work?	Observe, describe and record what changes happen in a kaleidoscope sequence – are all experiences the same / different?
Can I change the colour of the light?	What materials / colours are best for changing / blocking light?	Predict, discover and discuss findings. Make simple circuits – guided / independently.

Personal and Social Development, Well-Being and Cultural Diversity

Well Being

3) Physical Well-being

Context	Stimulus	Suggested Activity
What happens to my body when I exercise?	How do I feel different?	Children to predict, observe and record their experiences of the effects of exercise on their bodies – breathing / sweat / heart rate.
Why do I need to stay active?	Why is exercise good for me?	Children to investigate and record the health benefits to exercise.
What things are harmful to us?	What substances / habits may make me unwell / unhealthy?	Investigate the effects of lifestyle choices, in particular those which are harmful to ourselves / others.
Why do I brush my teeth?	How should I brush my teeth?	Egg shells in liquids experiment. Brushing an oversized mouth / mouths of toys. Fluoride UV experiment.
Why do I wash my hands after the toilet?	How are germs spread?	Child/ren to cover palms and fingers in glitter at the beginning of the day and look at where the glitter is left at lunch / home time.
Are all medicines good for us?	What do medicines do?	Categorising and matching medicines to ailments and illnesses.
Is sleep important?	Why do we need to sleep?	Research the benefits to a good night sleep. Represent sleep times – pictogram / chart.
How do I stay safe?	Which rules keep me safe?	Egg shell helmets – pupils to plan, create and test egg shell helmets made from different materials.

Personal and Social Development, Well-Being and Cultural Diversity

Well Being

4) Snack Time

Context	Stimulus	Suggested Activity
Why do I need a snack?	What am I eating?	Discuss, sort and classify different foods according to un/healthy or food types.
What do I like to drink?	Are all drinks healthy?	Researching, matching and classifying drinks with regards to sugar content.
Why do I wash my hands after the toilet? – see 3) Physical Well-being		
What happens to my food?	Where does my food go?	Investigate the digestive system. Discuss why we need to chew. Predict what happens to our food. Research the journey / path that our food takes.
What is fresh food?	How can we keep food fresh?	Predict what will happen to perishable food / liquids when not in fridge. Compare, discuss and record differences from observations.
My favourite snack?	Why have I chosen this snack as my favourite?	Predict favourite snacks of others (group / class) before session. Categorise answers un/healthy un/natural. pictogram
Is chocolate good for dogs?	Why are there different snacks for pets to humans?	Discuss, collate and categorise food / substances that are harmful / healthy.
Has my snack been made or grown?	Where has my snack come from?	Categorise and sort different types of snacks – considering where it has been sourced from or made (air miles).

Personal and Social Development, Well-Being and Cultural Diversity

Learning to Learn

1) Making a Scarecrow

Context	Stimulus	Suggested Activity
What are scarecrows?	What makes a good scarecrow?	Children to plan, design and make a scarecrow – Large (focus task) or small (enhanced activity).
How effective are our scarecrows?	How can I find out?	Survey the number of birds in an area before / after the scarecrows have been placed outside. Compare results with different scarecrows.
Does it matter where my scarecrow stands?	How can I find out?	Survey the number of birds in an area before / after the scarecrows have been placed outside. Compare results with the same scarecrow in different locations.
What do feathers do?	Do all birds have the same feathers?	Analyse a number of feathers from different birds using magnifying glasses. Do they all look the same? Record observations and findings.
Do all birds fly?	Are wings always used for flying?	Research, classify and discuss different types of birds and how they primarily move. Further investigate feather type and qualities.
What is in an egg?	What happens inside an egg?	Life cycles of birds – incubating eggs / chicks.
Where do birds live?	What makes a good nest?	Nest building using natural and salvaged materials.

Personal and Social Development, Well-Being and Cultural Diversity

Learning to Learn

2) The Sad Train

Context	Stimulus	Suggested Activity
How do trains work?	How have trains changed?	Research and discuss how energy sources have evolved (coal – electricity).
What is non/renewable energy?	Does the colour of my windmill make it better?	Classification of energy sources / making windmills. Introducing variables during windmill design and creation.
What is coal?	What can I see in coal?	Magnifying glasses to look at the fine details in coal. Children to describe and record their observations.
Where can I find bridges?	What are bridges used for?	Children to research, identify, classify and create different bridges – testing them in a given context against a success criteria.
Which material is best for building a train track?	Which materials could I make a train track from?	Discuss materials and shortlist 'appropriate' materials and materials available. Test materials by sending trains down a ramp to see which travels furthest.
Do bigger trains go faster?	Does the size of the train make a difference as to how fast it goes?	Time how quickly different sized trains go down a ramp – discuss fair testing so dropped not pushed. Race trains against each other.
Can I power a toy train without pushing it?	Which other forces can be used to move the toy train?	Discuss and plan to create balloon powered trains. Discuss the size, colour, type of train / balloon.

Physical Development

Physical Play

1) Moving Like Mini-beasts

Context	Stimulus	Suggested Activity
How do I move?	What body parts am I using?	Discuss, observe and record which body parts help me to move in different ways.
Can I move like a mini-beast?	In which different ways can I move?	Observing, describing and mimicking the movement range of mini-beasts.
How does it move?	Why does it move in this way?	Discuss, observe and record how animals' movements are adapted to their survival / habitat.
What is a skeleton?	Where is my skeleton?	Discuss, investigate and record the uses of our skeletons. Compare, classify and research in/vertebrates.
What is a mini-beast?	Can I name the parts of a mini-beast?	Using magnifying glasses to observe, describe and record how mini-beasts look and move.
Where do mini-beasts live? (i)	Can I find a mini-beast?	Predict and record where mini-beasts are found. Represent and reflect on findings using appropriate charts.
Where do mini-beasts live? (ii)	Where did we find our mini-beasts?	Design and create homes for mini-beasts using natural materials. Discuss suitability of designs and where they could be best situated.
Do mini-beasts go on holiday?	What is a mini-beast hotel?	Describe and record the activity of mini-beasts in a bug hotel using magnifying glasses.
Do mini-beasts like school dinners?	What do mini-beasts eat?	Discuss, predict and test what mini-beasts eat according to their habitat. Use magnifying glasses and iPads to observe and record findings – leaves and plants.
Can I turn into a mini-beast?	How will I need to change?	Children to design and create their own mini-beast costume. This can be fictional or based on an actual mini-beast.

Physical Development

Physical Play

2) Spheres in a Bucket

Context	Stimulus	Suggested Activity
Do big spheres roll further?	Does the size of the sphere affect how far it rolls?	Children to roll different sized spheres down a ramp and measure which travels furthest / shortest – relationship with size? Children to predict, conduct and reflect on task.
Do all spheres splash? (i)	Which spheres splash best?	Children to drop different sized spheres into water (from the same height). Pupils to predict results and discuss / reflect on observations.
Do all spheres splash? (ii)	What happens to the water when I put something in it?	Children to fill measuring cylinders with water, predicting, observing and recording the differences in water levels when different types of spheres are placed in them.
Can I splash sand?	What happens when I drop different spheres into sand?	Predict, observe, record and reflect on what happens when different spheres are dropped into sand – compare findings with dropping spheres into water. Discuss craters.
Do all spheres float?	Which spheres float and which sink?	Predict, observe, record and reflect on which spherical objects will sink or float in water.
What else is a sphere?	Which spherical objects are un/natural?	Identify, discuss and classify different types of spherical objects.
Are all planets spherical?	Is the Earth spherical?	Research, observe and discuss the planets of the solar system in relation to their size, position and features.
Why aren't boats spherical?	Can I balance a coin/s on a floating sphere?	Attempt to balance coin/s on a floating sphere. Does the size of the sphere make a difference? Children to discuss, record and reflect on findings.
Do all balloons float?	Can I make a balloon sink?	Balloons to be filled with air / water / ice – can be teacher or pupil led. Children to predict the which will float / sink in water. Findings to be recorded, discussed and categorised.

Physical Development

The Development of Physical Skills

1) Gross Motor Skills

Context	Stimulus	Suggested Activity
What are muscles?	How do muscles work?	Research and discuss how muscles work. Use elastic bands to demonstrate how muscles work in pairs and contract / relax.
Where are my muscles?	Are they only in my arms?	Observe, discuss and record different types of movements.
Does our height make a difference to how far we can jump?	How far can I jump?	Predict and justify who pupils think may be able to jump furthest – measure heights of children. Record, measure and compare findings. Reflect and conclude appropriate to age / ability.
Does the length of our arms make a difference to how far we are able to throw?	How far can I throw?	Predict and justify who pupils think may be able to throw the furthest – measure the arm lengths of children. Record, measure and compare findings. Reflect and conclude appropriate to age / ability.
Does the length of our legs make a difference to how far we can kick a ball?	How far can I kick a ball?	Predict and justify who pupils think may be able to kick a ball the furthest – measure the leg lengths of children. Record, measure and compare findings. Reflect and conclude appropriate to age / ability. Use trundle wheels, meter sticks, tape measures, etc.

Physical Development

The Development of Physical Skills

2) Responding to an Autumn Poem

Context	Stimulus	Suggested Activity
What is autumn?	What happens during autumn?	Discuss, observe and record how the seasonal changes affect nature (plants and animals).
How do I know when it is autumn?	What happens to the weather during autumn?	Children to discuss, predict and compare weather patterns to those of different seasons. Use rain gauges / thermometers to track, measure and represent findings
What are conkers?	Where do conkers come from?	Find, investigate and observe conkers using a magnifying glass, recording findings.
Are all conkers the same?	Do all conkers float?	Predict, observe and investigate if all conkers float in water. Discuss and classify results.
Are all leaves the same?	How are leaves different?	Classify and arrange leaves according to colour, size, shape, etc.
Can pine cones tell the weather?	What happens to pine cones in different types of weather?	Observe / describe changes to pine cones in warm / cold and dry / wet conditions.
How do sycamore seeds float to the ground?	How are seeds like helicopters?	Throwing and describing sycamore seeds – comparisons to helicopters and other seeds.
When do animals sleep?	What is hibernation?	Sorting and classifying animals that hibernate.
Could I hibernate?	What would I need?	Discuss, justify and prioritise items that would be needed if the pupils hibernated.
What is in the woods?	What can I see on a nature walk?	Predict, observe, discuss, record and reflect on what they see during an autumn nature walk.

Physical Development

The Development of Physical Skills

3) Fine Motor Skills

Context	Stimulus	Suggested Activity
What can I use my hands for?	How much can I hold?	Draw around hands and measure hand spans. Do bigger hands hold more marbles, blocks, etc?
Are my hands the same as yours?	How can I tell that my hands are different?	Finger printing using paint / ink. Children to compare samples using magnifying glasses / zoom facility on iPads to compare results.
The above activities can be adapted to also apply to feet / toes.		
Can I make small movements?	How can I move small objects?	Children to use tweezers to move / separate and organise small objects.
Will it fit?	Can I control string?	Threading and beading activities with different sized holes / objects.

Physical Development

Health and Safety including Healthy Eating and Well Being

1) Safety Issues

Context	Stimulus	Suggested Activity
Why do builders wear helmets?	Why should I protect my head?	Use different materials to make crash helmets for eggs. Children to design, create, test and evaluate which materials work best. Children to sort / categorise different types of helmets.
How can I keep safe?	What rules can we follow?	Discuss known rules with regards to: • School rules. • Water safety. • Electrical safety. • Hygiene. • Hazards and dangers. Organise / arrange and identify trends.
What can I wear to keep me safe?	Which parts of my body can I protect?	Identify, research, discuss and categorise safety equipment. Goggles, glasses, helmets, shin / shoulder pads.
How can I stay safe near water?	What could help me?	Use different materials to make life jackets for (sinkable) figures. Children to design, create, test and evaluate which materials work best.
Does it always help?	Are all medicines safe?	Discuss and categorise medicines, giving consideration to toxins, purposes and ailments.

Physical Development

Health and Safety including Healthy Eating and Well Being

2 & 3) Healthy Living / Eating

Context	Stimulus	Suggested Activity
Personal and Social Development, Well-being and Cultural Diversity Physical Well Being: Snack Time		

Physical Development

Health and Safety including Healthy Eating and Well Being

4) Making Leek and Potato Soup

Context	Stimulus	Suggested Activity
How are leeks made?	Can I make a leek?	Grow leeks from seeds. Consider, predict and record the conditions in which leeks grow best and consider success criteria for <i>what makes a good leek?</i>
How big can we make our leeks?	How can we measure size?	Grow / buy and compare different sized leeks. <i>Do longer leeks always weigh more?</i> Children to develop weighing and measuring skills.
What do leeks taste like?	Do I like leeks?	Taste leeks that have been prepared / cooked in different ways. Children to discuss and represent preferences through graphs / charts.
What are leeks made from?	What is inside a leek?	Dissect / cut / unravel leeks. View the different parts through magnifying glasses, recording results. Children to discuss and label the different parts of a leek, roots, leaves, bulbs, along with colours and the graduated change from green to white.
How are potatoes made?	Can I make a potato?	Grow potatoes from seeds. Consider, predict and record the conditions in which potatoes grow best and consider success criteria for <i>what makes a good potato?</i>
How big can we make our potatoes big?	How can we measure size?	Grow / buy and compare different sized potatoes. Children to develop weighing and measuring skills.
What do potatoes taste like?	Do I like potatoes?	Taste potatoes that have been prepared / cooked in different ways. Children to discuss and represent preferences through graphs / charts.
What are potatoes made from?	What is inside a potato?	Cut and observe different parts of a potato. Record

		observations made using magnifying glasses and / or iPads.
Can leeks change colour?	How can I change the colour of a leek?	Roots of grown leeks to be immersed in heavily concentrated food colouring over days. Predict, discuss, observe and record the effect on the leeks.
Will it disappear?	Where has it gone?	Discuss and predict what will happen to leek and potato peelings / waste over a period of time. Record and discuss findings, based on composting.
How do you make soup?	Can I make soup?	Order / arrange / write instructions (method) for making soup.
Can I make soup?	Can I follow instructions?	Follow a recipe (method), using weighing / balancing, timing and communication skills.

Creative Development

Creative Development

1) The Developing Child

Context	Stimulus	Suggested Activity
Personal and Social Development, Well-being and Cultural Diversity Well Being: Self Identity / Self Esteem		
Personal and Social Development, Well-being and Cultural Diversity Well Being: Physical Well-being		
Can I make a person?	What parts do I need?	Make a model of a person using junk materials, modelling clay, play dough, etc. Recall and name the different and main body parts.
Can I draw a person?	What do I need to include?	Draw a picture of a person. Recall and name the different and main body parts.

Creative Development

Creative Development

2) Painting a Mural

Context	Stimulus	Suggested Activity
Personal and Social Development, Well-being and Cultural Diversity Well Being: Painting of Maisha		

Creative Development

Creative Development

3) A Foundation Phase Garden

Context	Stimulus	Suggested Activity
How do flowers grow?	What do plants need?	Grow seeds under different conditions. Predict, discuss and record outcomes.
What is in a flower?	Does a flower have different parts?	Dissect / separate different types of flowers / plants. Discuss and record observations using magnifying glasses and / or iPads. Use tweezers to separate flower / plant parts.
What is in soil?	Is there more to mud?	Sieve and separate soil. Make, discuss and record observations with magnifying glasses and iPads. Use tweezers to develop fine motor control.
Personal and Social Development, Well-being and Cultural Diversity Well Being: Snuggly Squirrel		
Personal and Social Development, Well-being and Cultural Diversity Well Being: Making a Scarecrow		
Physical Development Physical Play: Moving Like a Mini-beast		
Physical Development The Development of Physical Skills: Responding to an Autumn Poem		
Can we grow food?	Which fruit / vegetables can be grown?	Grow different types of fruit / vegetables in the classroom / school garden. Observe, discuss and record results,
Do all plants / flowers grow?	Can I make a plant / flower?	Plan, discuss and create different types of flowers and plants using a range of media (Lego, play dough, scrap materials, etc).
What do roots do? (i)	Do I have roots? (i)	Children to drink different coloured liquids (squash / cordials) using clear straws and make comparisons to how plants use roots.
What do roots do? (ii)	Do I have roots? (ii)	Children to use measuring cylinders, syringes, funnels and pipes to extract water and model the role of a plant's roots.
Can plants change colour?	Can I change the colour of a plant?	Place stems of plants / flowers (daffodils, roses, celery, daisies, etc) in a concentrated food colouring and discuss, record and evidence observations.
Where do ill plants go to get better?	Can I be a plant doctor?	Discuss, observe and recognise the appearance of a healthy plant. Give an 'unhealthy' plant opportunities to thrive and repair by placing it in an environment conducive for improvement. Discuss, observe and record the changes and give reasons for the effects.

Creative Development

Art, Craft and Design.

1) Daffodils

Context	Stimulus	Suggested Activity
Can I grow a daffodil?	What do plants need to grow?	Grow daffodil bulbs under different conditions; discussing, recording and evidencing observations.
What is in a bulb?	Is a bulb the same as a seed?	Cut and dissect daffodil bulbs, making and recording observations with magnifying glasses and / or iPads.
What is a daffodil made from?	Does a daffodil have body parts?	Dissect daffodils; discussing, recording and making observations. Separate parts of the plant with a tweezers and use magnifying glasses / iPads to assist with observations.
Are all daffodils yellow?	Can I change the colour of a daffodil?	Place daffodils (stems) in different (food) coloured water; predicting, discussing and reflecting on the effects.
Can I make a daffodil without planting bulbs?	How many different ways can I make a daffodil?	Make a model of a daffodil using junk materials, modelling clay, play dough, etc. Recall and name the different and main parts of the plant.
Are daffodils like other plants?	Are all plants the same?	Dissect daffodils and other flowers. Discuss similarities and differences between the plants. Use equipment such as tweezers and magnifying glasses.
How thirsty are daffodils?	How much water do daffodils drink?	Measure how much water a daffodil/s need by placing it / them in a measuring jug of water and calculate / mark / measure how much water has disappeared.

Creative Development

Music.

1) Junk Music

Context	Stimulus	Suggested Activity
What sounds can I make?	Which parts of my body make which sounds?	Discuss, record and create sounds using different body parts. When using mouths to make sounds, encourage the use of mirrors to observe shapes and positioning of lips.
Which junk can make sounds?	What do I have to do to create sounds?	Predict, discuss, test and record the different ways of making sounds with a variety of materials (junk). Classify and organise results into <i>pluck, hit, shake and blow</i> .
How long can I make a sound for?	Which sounds can my mouth make?	Make a sound (encourage a whistle or hum) and use a stopwatch to record how long the sound can be made in one breath. Use an iPad to record pitch and duration, as well as mirror to observe shape of mouth / lips. Use graphs / tables to evidence results.
How quiet / loud can I make a sound?	What do I have to do to make a quiet / loud sound?	Play an instrument / junk instrument and discuss what is needed by the performer to make the sound quieter / louder.
How well can I hear?	Can I hear a sound from far away?	Walk away from a sound (radio) until it can no longer be heard (this will need to be done outside). Measure and record distances using a trundle wheel and iPad. Display results on graphs / tables.
Can water make sounds?	Does the amount of water change the type of sound?	Children to fill (the same) vessels with different amounts of water. Observations of the sound made when the surface is blown across to be recorded.
Do vegetables make sounds?	Can I make a vegetable make sounds?	Make, play and record fruit / vegetable instruments. Parsnip flutes, coconut drums, etc.
Does it sound like rain?	What does rain sound like?	Plan, design and make shakers containing different types of grains. Observe, discuss and evaluate which size grain sounds most like rainfall.
What is a mobile phone?	Can I make a mobile phone?	Design, make and test cup and string telephones. Change types and size of string / cups.

Creative Development

Creative.

1) We Are Dinosaurs.

Context	Stimulus	Suggested Activity
How big were dinosaurs?	Were all dinosaurs big?	Compare dinosaur sizes – measuring, drawing and comparing lengths on the playground.
Did dinosaurs wear shoes?	How big were dinosaur feet?	Compare and contrast the size of different dinosaur feet with the children in the class / other animals.
Can I make a dinosaur?	Were all dinosaurs the same?	Make a model of a dinosaur using junk materials, modelling clay, play dough, etc. Recall and name the different and main parts of the chosen creature.
Can I find a dinosaur?	How are dinosaurs discovered?	Palaeontology activities in sand / tuff trays. Use trowels, paint brushes and magnifying glasses to complete excavations.
What is a fossil?	What can we see?	Record observations using magnifying glasses / iPads. Use chalks / crayons to take rubbings and discuss results.
Why are there no dinosaurs?	Can I make a crater?	Create craters using different sized and weighted balls in the sand tray. Measure, discuss and record the differences between craters which have been influenced by the variables

Creative Development

Creative.

2) The Musical Pantomime.

Context	Stimulus	Suggested Activity
	Creative Development Music: Junk Music.	