

**Learning Pathway** 

# **Goals in stages for Science**

### Each goal has a corresponding activity plan

### Living Things and Their Habitats

### **Living Things and Their Habitats**

### **Stages 1 & 2**

Experience mini beasts on or close to them using senses. Encounter and touch, stroke or smell animals.

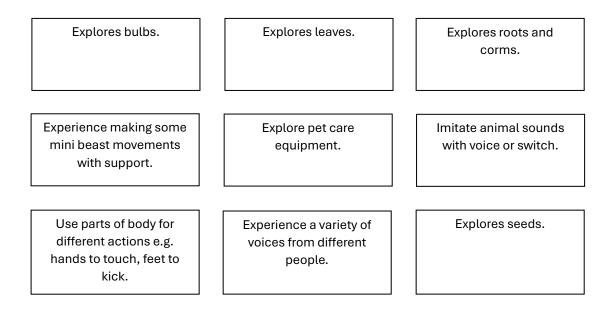
Experience of tactile sensations and actions on different body parts.

Meet different age people & listens to their voices. Experiences different environments.

Experience a range of plants through the senses.

Increase body awareness.

### Stage 3

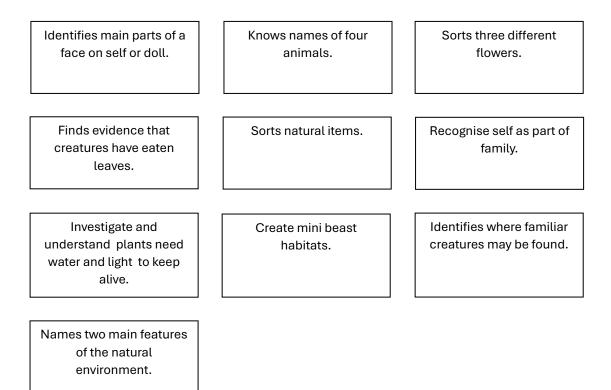


## Living Things and Their Habitats

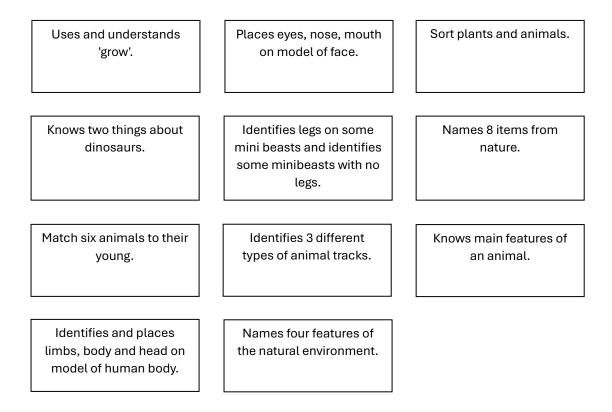
#### Stage 4

Match some animal<br/>sounds to animals.Attempt to imitate body<br/>movements and actions<br/>themselves or using<br/>dolls/ computer program.Plant seeds and<br/>watch/feel them grow-<br/>observe how not all<br/>seeds grow.Match mini beast sound/<br/>movement to mini beast.Role play- put animals in<br/>habitats in play situation.Plant seeds and<br/>watch/feel them grow-<br/>observe how not all<br/>seeds grow.

### Stage 5

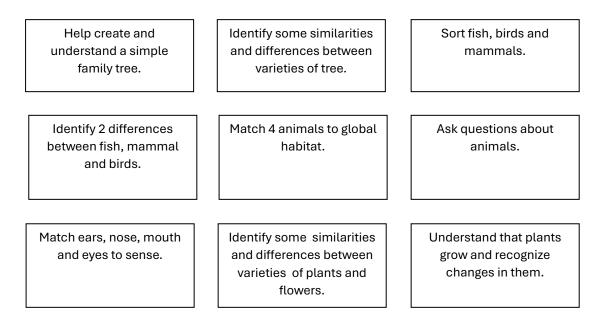


### Stage 6



## Living Things and Their Habitats

### Stage 7



## Stage 8

Recognise and name main external parts of the body.	Matches natural item to different 3 natural environments e.g. shell to beach.	Awareness that dinosaurs no longer live on the earth.
Knows 3 things humans need.	Match four animals to global habitat.	Understand why some animals can survive in different habitats e.g. camels in desert, penguin in water and land.
Identify main parts of a tree e.g. roots, leaves, trunk.	Identify main parts of a plant e.g. roots, leaves, stem.	Knows that fruit and vegetables are good to eat.
Sequence four stages of a plant growing.		

#### **Materials and Processes**

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#### Stages 1 & 2

Encounter and show a reaction to processes happening to different materials. Responds differently to tactile sensory input from different materials.

#### **Materials and Processes**

#### Stage 3

Attends jointly to adult and object.

Actively explore materials with interest e.g. scrunch foil.

Participate with 1-1 in experiences that cause things to change.

### **Materials and Processes**

#### Stage 4

Select different materials for different purposes from choice of 2 (1 suitable , 1 unsuitable). Makes things change by applying a process.

Understands function of some objects and matches to usage.

### **Materials and Processes**

#### Stage 5

Sequences before and after evidence of materials changing e.g. making paper. Make a change to a material and relay that they observe the change e.g. ice to water. Sorts materials by single attribute.

### **Materials and Processes**

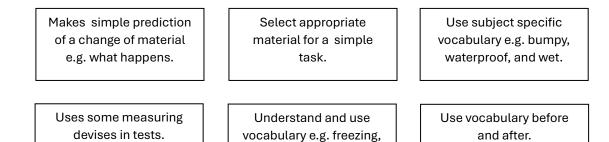
paper.

#### Stage 6

Identifies the action or Test which items float Sorts materials by material that caused a and sink and use properties e.g. hard, soft. vocabulary float and sink. change. Uses different processes Sequences a three part Identify a similarity and a difference between types to alter the shape of change after an of materials. some materials in a experiment e.g. ice, hot, variety of ways. water. Test and identify 4 things that you can do with

### **Materials and Processes**

### Stage 7



cold, melt.

#### **Materials and Processes**

#### Stage 8

Make or direct an adult to make some simple boats from different materials and predict which ones will float or sink.

Identifies 3 common materials e.g. wood, glass, plastic. Sequences a process using up to 6 photos.

Test 4 materials for purpose in relation to one another? Identify the best one. Compares properties of materials and comment on findings.

Describe changes to a material in a test.

### **Light, Sound and Electricity**

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#### Stages 1 & 2

Smiles/gestures enjoyment to certain light or sound stimulus.

## **Light, Sound and Electricity**

#### Stage 3

Briefly tracks motivating Moves in response to visual stimulus. strong sound beat but may not be in time. Briefly tracks motivating Consistent preference for

auditory stimuli.

Experience operating electrical equipment using a single switch.

### **Light, Sound and Electricity**

specific colour of lights.

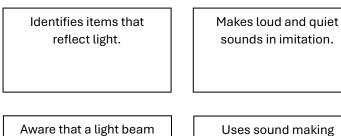
#### Stage 4

Activates simple equipment to make things work.

Communicates response to changes in sounds.

### Light, Sound and Electricity

### Stage 5



Uses sound making equipment to explore sound and volume. Selects appropriate electrical appliance for a task. and uses e.g. hoover to clean.

## Light, Sound and Electricity

comes from torch.

### Stage 6

Explore making shadows and show patterns.

Understands vocabulary dark and light.

Identifies sound sources.

Identifies electrical items in the room and at home.

## Light, Sound and Electricity

### Stage 7

Identify light sources.

Knows battery operated items do not work without the battery. Know how shadows are made.

## Light, Sound and Electricity

### Stage 8

Associates some sounds with vibrations.

Knows that sound travels.

Tests light sources and makes comments on findings.

Create a simple battery powered circuit with help.

## Light, Sound and Electricity

### Stage 9

Communicates changes in light/ colours using simple adjective.

#### Earth, Space and Weather

#### Earth, Space and Weather

### Stages 1 & 2

Experience a range of different weather.

Explores a variety of rocks, stones and pebbles.

Show awareness of dark changing to light and vice versa.

### Earth, Space and Weather

#### Stage 3

Experience the weather changing during a day.

### Earth, Space and Weather

#### Stage 4

Discriminates a round shape from a star shape.

Identify that weather is outside e.g. where is the rain?

Use senses to explore different rocks and fossils.

### Earth, Space and Weather

#### Stage 5

Knows that the sun appears in the sky. Select appropriate /item clothing from choice of 2 for specific weather.

### Earth, Space and Weather

#### Stage 6

Sort different rocks.

Knows the moon and the stars appear in the sky.

Can find a 'sun' or planet shape from a choice of three. Record and name weather as occurs using symbols/pictures.

### Eartch, Space and Weather

#### Stage 7

Names two things found in soil.

Know the sun gives light and heat during the day.

Keep a weather chart/diary.

### Earth, Space and Weather

#### Stage 8

Identify a rock containing a fossil relative to one that does not.

Understands that it is dangerous to look at the sun and why.

Understands why soil needs worms.

Identify how people would travel to the moon.

### **States of Matter**

### **States of Matter and Weather**

#### **Stages 1 & 2**

Encounter and respond to solids changing to liquids or vice-versa. Experience properties of water.

### **States of Matter and Weather**

#### Stage 3

Explore solids and liquids actively.

### **States of Matter and Weather**

#### Stage 4

Feel and compare solids and liquids.

### **States of Matter and Weather**

#### Stage 5

Sequences 2 pictures of before and after of heating and cooling of material.

### **States of Matter and Weather**

#### Stage 6

Sequence 3 photos to show change.

### **States of Matter and Weather**

Predicts what will happen when some materials are heated or cooled.

### **States of Matter and Weather**

#### Stage 8

Knows how to make water change from liquid to solid and vice versa.

### **Working Scientifically**

### **Working Scientifically**

#### Stages 1 & 2

Uses 2 hands to hold and explore things.

Co-actively reach out to make things move.

Smiles or gestures in response to certain stimuli.

### **Working Scientifically**

#### Stage 3

Shows anticipation of favoured activity when given cue.

Experiences now and next board with 1-1 support.

### Working Scientifically

#### Stage 4

Use simple equipment with support e.g. scales, magnifiers. Manipulate objects to create very simple experiments.

Actively experience 2 different concepts e.g. fast and slow.

### **Working Scientifically**

### Stage 5

Know same action can cause same effect in same circumstances.

## **Working Scientifically**

#### Stage 6

 Sorts by clear very distinct features.
 Identify which items are floating and which have sunk.
 Knows how lenses an sunk.

 Uses trial and error.
 Communicates what they have just done.

Knows how to use hand lenses and egg timers.

### **Working Scientifically**

### Stage 7

Use some descriptive words used to describe results.

Uses past experiences to make generalisations.

Tells whether their prediction was right.

Make simple predictions based on familiar experiences. Ask a range of questions related to scientific activities.

### **Working Scientifically**

#### Stage 8

Suggests actions to perform on objects to test them.

Asks and responds to how and why questions.

Makes a simple block graph to show results.

Make a test fair.

#### **Forces**

Forces

### Stages 1 & 2

Briefly tracks motivating moving stimulus.

#### **Forces**

### Stage 3

Knows action on an object can make it move.

Reaches out to touch or move things.

Press hard objects into soft textures with support.

### Forces

#### Stage 4

Plays with magnets and shows one thing that is attracted to them.

Communicates a response to changes in movements.

Pushes objects to make them move.

Pulls objects to make them move.

### Forces

### Stage 5

Experiment placing items on to a boat to make it sink and identify moment it sinks. Make an object/item stop and start deliberately on command. Identify which 3 things are attracted to magnets from a selection of 6.

### Forces

### Stage 6

Identify 2 things whose shape has stayed changed by pushing or pulling.

Demonstrates the difference between a push and a pull.

### Forces

## Stage 7

Knows a bigger push will make something move faster and further. Names actions of pushing and pulling.

Makes an object move and stop deliberately on command.

Use vocabulary slow and fast and stop, moving and go.

### Forces

#### Stage 8

Find 6 things that are magnetic and 6 things that are not and record the results. Predict which things a magnet will attract.