

EARLY YEARS SCIENCE PROVISION MAP

Play, Observe & Ask

Malleable Play

Learn: how we can change the shape of some materials

You need: clay or thick mud, natural objects, wooden spoons, water, bowl

Ask the children to mix a thick mud in their bowl. Roll the mud or clay into a ball and flatten it into a face shape. Pat this onto the tree. Add natural objects to make a face.

Play observe & ask:

- How did you change the shape of the clay or mud?
- What materials did you add to make your face?
- How did you add more objects?
- Can you change the shape of those materials?

Learn: leaves have different shapes and textures; some objects can change can shape.

You need: air-drying clay, leaves (children could collect these)

Tear off small pieces of clay and shape into discs. Collect leaves and press them in.

Play observe & ask:

- How are your leaves similar/different?
- Can you show me the veins?
- What happens when you press the leaf into the clay?
- What happens to the clay when it dries?
- Can you match the leaf with the clay leafprint? How do you know they match?

Small World

Learn: to name and describe the properties of natural objects.

You need: Y-shaped sticks, straight sticks, large leaves, moss or bracken, stones, small toys

Challenge children to use these objects to create a small home for a toy (could be done outside against the base of a tree).

Play, observe & ask:

- Which toy/animal are you building a home for?
- How will you know what size to build your home?
- How can you make the roof waterproof?
- How can we test if it is waterproof?

Observation/Art

Learn: to observe closely; how the surface of each leaf is different

You need: crayons, paper, leaves (children could collect these)
Make rubbings of different leaves. Cut them out. Use them for a matching game.

Play, observe & ask:

- Which rubbing matches with which leaf?
- Which leaves are similar? How are they similar?
- Which leaves are different? How are they different?
- Can you describe your leaf?
- Can you pair your plant leaf and paper leaf?

AUTUMN / TREES



Outdoors

Learn: features of autumn; how the local environment changes across the four seasons

You need: photographs of one site taken in different seasons

Play, observe & ask:

- Can you find the place where this picture was taken?
- How do you know it is the same place?
- What can you see now?
- When do you think the picture was taken? Why?
- How is this place similar/different to our picture?
- What leaves can you find here? Can you sort them?
- What tree seeds can you find here? Can you sort them?
- Can you see any signs of animals or birds living here now?
- What will they do in the winter?

Sensory Play

Learn: that we can use our senses to find out about the natural objects around us

You need: bowls, pots and pans, wooden spoons, water, natural objects – leaves, bark, soil, pine cones, petals, etc.

Make a 'potion' and explore what happens when you combine different materials.

Play, observe & ask:

- What are you going to mix together?
- What happens when you stir the ingredients?
- What happens when it gets wet?
- How does your potion feel/smell/look?

Role Play

Learn: to sort natural objects into groups

You need: natural objects, e.g. pine cones, leaves, interesting stones, sticks (children could collect these)

Create a role play shop in the woods with lots of natural objects.

Play, observe & ask:

- How will you organise your shop?
- Which things are the same? Which are different?

Key Science Vocabulary

trees - oak, conifer, beech, hawthorn, sycamore, etc.
natural objects - leaf/leaves, bark, trunk, twig, stick, seeds, nuts, acorn, pine cone, berries, moss, bracken, stones, soil, mud
properties of materials - soft, hard, smooth, rough, shiny, dull, prickly, bumpy, waterproof, squishy, bendy, stretchy
sizes - wide, narrow, big, little
changing shapes - squashing, twisting, bending, stretching
senses - touch, smell, sight
seasons – autumn, winter, spring, summer, changes

Further Science

Learn about animals living in the local environment. What animals live here? Why do they like to live here? How could we build a bug hotel?