EARLY YEARS SCIENCE PROVISION MAP

Play, Observe & Ask

Sensory Play

Learn: the lifecycle of a frog
You need: toy frogs, tadpoles/froglets (or pictures or film clips of them), chia seeds, water, laminated arrows, tray
Soak chia seeds in water overnight until they swell to resemble frog spawn. Talk about the frog life cycle and show pictures/film clips.
Play, observe & ask

- Can you describe how these feel to touch?
- Where do frogs come from?
- Can you use the resources to show me what happens to frog spawn?

Role Play

Learn: how small animals move
You need: to have been on a minibeast hunt, watched film clips of minibeasts or other garden animals; fabrics to dress up, face masks
Play, observe & ask:

- Can you pretend to be an animal?
- Can you show me how the animal moves?
- Can your friend guess which animal you are?
- Give us some clues – Can you describe your animal? Can you tell us where it lives?

Outdoors

Learn: where minibeasts live (habitats)
You need: crates, bricks, stones, sticks, straw to make a bug hotel, clipboards, magnifying glasses
Play, observe & ask:

- Have you ever seen a worm/beetle/caterpillar/woodlouse?
- How are their bodies different to ours?
- Where might we find these animals outside? Shall we look under stones?
- Why do you think they like living in these habitats? (damp, protection, food supply)
- How could we build them a bug hotel? (Stack crates and ask the children to fill the spaces with sticks, bricks, stones, straw, etc.)

Construction

Learn: some animals live in nests.
You need: twigs, moss, leaves (could be collected by children on a nature walk), bird's nest or picture of a nest
Play, observe & ask:

- What do you think it is like to live in this nest?
- How does the bird stay warm and dry?
- How do young birds stay safe?
- Can you build a nest for a bird?

ANIMALS IN MY GARDEN

Small World

Learn: to name and describe small garden animals
You need: samples of leaves and flowers from a garden, mini logs, artificial grass and plastic minibeasts that might live in a garden (or pictures or insect blocks), magnifiers
Play, observe & ask:

- Do you know the names of these animals/plants?
- How many legs/wings do they have?
- How are these animals similar?
- How are these animals different?
- Can you sort these animals? How did you do that?

Malleable Play

Learn: to name and describe animal body parts
You need: modelling clay (e.g. Play-Doh* or Plasticine*) or foil
Play observe & ask:

- Can you use the modelling clay to make a model animal?
- What body parts does it have?
- Can your friend guess what your animal is?

Water Play

Learn: to name and describe some aquatic animals
You need: water tray or paddling pool, plastic fish, frogs, snails, fishing nets, sorting hoops
Encourage the children use the nets to 'catch' the animals.
Play, observe & ask:

- What animals might we find in a garden pond?
- What makes these animals able to live in water? (gills, fins, etc.)
- How are these animals similar/different?
- How could we sort them?

Key Science Vocabulary

body parts - tail, claws, fins, gills, wings, etc.
large animals (mammals) – frog, squirrel, cat, mouse, rat, rabbit, fox, badger
birds – blackbird, robin, sparrow, blue tit, crow, etc.
minibeasts – worm, beetle, insect, spider, woodlouse, caterpillar, butterfly, etc.
life cycle, frog, frogspawn, tadpole, froglet, grow, change

Further Science

Pets – Find out what animals the children have at home. Can any visit the class? How are they looked after?
Mother and baby animals – matching, naming and talking about body changes during growth.
Lifecycle of a butterfly - see PSTT's Early Years Provison Map for 'The Very Hungry Caterpillar'.

* ® Playdough, Plasticine