

EARLY YEARS SCIENCE PROVISION MAP

Play, Observe & Ask

Sensory Play

Learn: that we can move some objects by blowing on them

You need: a variety of objects to test, e.g. a feather, book, pompom, metal/plastic spoons, pencil, balloon, leaf, shoe, plastic bag, etc.

Play, observe & ask

- Which objects might move if we blow (huff and puff) at them? Why?
- Let's test out our predictions. What is similar about the objects that moved?
- Why do you think some objects did not move?

Water Play

Learn: some materials are waterproof.

You need: Lego*, teaspoons/pipettes, water, paper pig, scissors, tape, materials to test (see Role Play list)

Build a house with no roof using Lego* and place a paper pig inside.

Play, observe & ask:

- How can you test different roof material to see which keep the pig dry?
- Which materials keep the pig dry? Why?

Malleable Play

Learn: that some materials are flexible/bendy

You need: straws, spaghetti, marshmallows, mounting putty (e.g. Blu Tack*)

Play observe & ask:

- Which of these are bendy? Which snap or are rigid?
- Which of these materials can you use to build a house for the pigs? Why have you chosen these materials?

Role Play

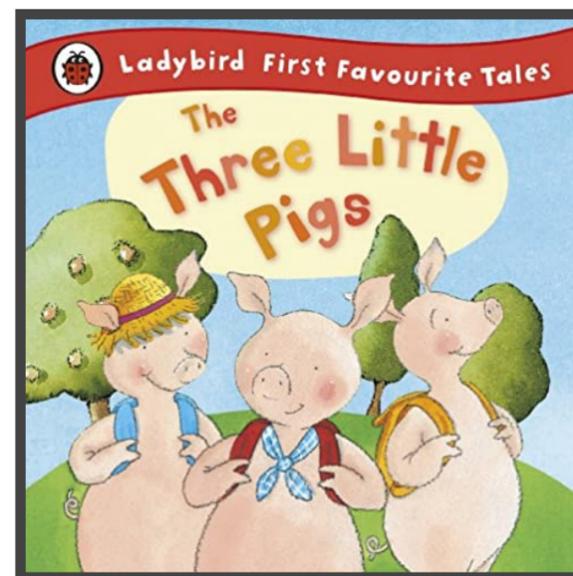
Learn: that some materials are waterproof

You need: 2 chairs per group, masking tape, small watering can, materials to test – fabric, bubble wrap, paper towels, newspaper, foil, cling film, kitchen roll, bin bag

Each group constructs their roof between two chairs, one child plays the pig and sits underneath. Another pours 'rain' from a small watering can.

Play, observe & ask:

- Can you build a waterproof roof over?
- Which materials will you test?
- What do you predict will happen when the rain comes?
- Is the material waterproof? How do you know?



Small World

Learn: we can move some objects by blowing on them.

You need: pompoms or ping pong balls, drinking straws, toy/Lego* houses

Play, observe & ask:

- How can we move the pompom/ball without touching it? Encourage a range of ideas, then show the children how to use a straw to blow the pompom around the houses.
- Why does the pompom move but the Lego® houses stay still?
- Can you race your friend's ball around the village?



Outdoors

Learn: how the wind can change the appearance and the position of things

You need: plastic bin bags, windmills, parachute

Take the children out on a windy day and encourage them to feel the force of the wind as they run with bin bags, observe paper windmills spinning, lift the parachute together.

Play, observe & ask:

- Can you see the wind? Can you see it moving anything around? Can you feel it? How do you know the wind is there?
- Is it always this windy? How could we measure the wind?
- What other types of weather can you talk about?

Construction

Learn: to describe the properties of some materials; to compare the suitability of different materials for a particular purpose (building a house)

You need: paper straws, sticks, bricks, fan/hairdryer

Play, observe & ask:

- What materials would you choose to make a house for the three little pigs? Why?
- Which might be the strongest?
- How will you twist/stretch/snap/cut each material?
- Build houses from each – Which can you blow down? Were you surprised? Why/why not?

Key Science Vocabulary

materials – straw, sticks, bricks, plastic, paper, metal, fabric
properties of materials – waterproof, strong, stable, rigid, bendy, flexible

wind, breeze, blow, flutter, air, move, bend, weather, force

Further Science

Pigs and wolves – What body parts do they have that are the same or different to ours? What do they eat? Compare herbivore and carnivore diets. Where do they live? Look at animal homes/habitats. Can you make a house with a transparent window? Look for windows around school – What materials are they made from? Investigate which materials are see-through (transparent). Shine torches through materials – Can you see the light? Which materials might make the best curtains? Why?