

Surrounded by science

A child's innate desire to explore their world requires them to use their senses, test out theories, make mistakes and persevere. Exploring the world in this way enhances their development, and doing so outdoors allows children enough space to use their whole bodies, to work on a variety of scales and to make sense of a wide variety of different materials...

find out more

Learning through Landscapes offers a range of services to support outdoor learning and play in the early years. Its membership resources and publications provide a regular supply of fresh activity ideas, and it offers on-site support through advisory visits and half-day, full-day or twilight training sessions for nurseries. Visit lfl.org.uk

Inspire your little scientists outdoors with these ideas from charity Learning through Landscapes...

Soil

Soil is an inexpensive natural play resource and in many settings is readily available. Adding water changes its consistency, making it ideal for mark-making. In addition, mini-beasts love it, and you can use it for growing too! Create a digging pit so children can explore the soil while developing their gross motor skills, and provide a table so that they can easily manipulate it to develop their fine motor skills. Read the story *Jasper's Beanstalk* and give the children some beans and a magnifying glass. What colour are they? Are all seeds the same? How long does it take for a seed to germinate? Set up a display where the children can put different seeds on damp kitchen paper to watch them germinate. Write questions on card and place them with the display. Which seed grows first? Try planting seeds outdoors and observe them in the same way.

Water

Water has many fascinating properties that children love to explore. Very young children will investigate why things float and sink. Try pushing an inflated balloon down on the surface of the water and you can feel the resistance. What happens to water displaced by objects dropped in it? What happens to water when you freeze it? Collect a variety of resources such as Lego bricks, match boxes, tubes, plastic containers, leaves, lids and straws, and set a challenge for the children to design and make a boat. Which ones floats or sinks? Ask the children why they think this has happened.

Sand

Sand offers multi-sensory experiences to children as they can immerse their whole bodies when exploring it. It can be sprinkled, patted, moulded, dug and poured; dug up and transported from one place to another; or turned into a landscape for small world play. In fact, the bigger the sandpit, the

greater the opportunities! Sand also allows children to experiment alongside others, interacting, collaborating and socialising. Place a portable tray on legs into a large sandpit to give children an opportunity to explore the sand at different levels. If you don't have a pulley system in your sandpit for moving sand, work with the children to create one using ropes, buckets, wood, bricks and hooks, attaching it to a fence, a branch, a wall or post.

DID YOU KNOW...

It takes children up to 40 minutes to become totally engaged with an activity outdoors? Give children plenty of time to plan their ideas, explore and make discoveries, and be prepared for them to repeat an activity again and again to consolidate their learning.

Natural resources

From sticks and leaves to pebbles and rocks, natural resources offer more 'affordances' – opportunities to use them in many different ways – than most manufactured toys. Playing with objects like these gives children the chance to be more creative and imaginative, allowing them to explore and understand more about the world they live in. Collect together samples of wood, straw and real red bricks (ask parents if they can donate any of these). Retell the story of the *Three Little Pigs* and let the children explore these materials and try to build homes for the pigs themselves. Which is the strongest? Why?

TIP...

Encourage parents to support children's investigations at home in their daily routine: e.g., using bath-time to explore floating and sinking or discussing the weather when walking to nursery.