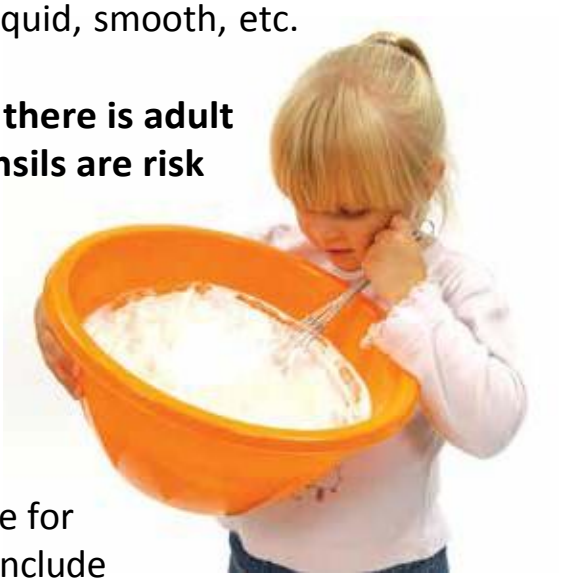
Science Fun

Gaining a knowledge and understanding of their world

Introduction

Early years science is all about being curious, investigating and experimenting. We want children to experience different materials, to be able to describe their properties and to see how they can be adapted and changed. This not only helps them to understand their world but helps them to master a scientific vocabulary and use words such as transparent, liquid, smooth, etc.



Here are a few suggestions. **We do advise that there is adult supervision at all times and materials and utensils are risk assessed for safety, including allergies.**

Washing up Bowl Science

- Find a bowl and selection of containers suitable for using in water pouring activities. These might include pans, jugs, empty milk containers, plastic mugs, etc. Ensure the water is at a safe temperature. Let the children empty and fill with the water. Which container holds the most? How many cups of water go into the pan? How many does it take to fill an egg cup? By using a washing up bowl, or a large mixing bowl you will be able to keep the quantity of water down to a minimum to avoid wastage. The children can scoop the water from the bowl into the receptacles.

- Can we change the water? Fill a collection of different containers with water. It could be old yoghurt pots, butter containers, etc. Add food colouring to them, using different colours and stir. Do they all look the same now? Try adding a drop of bubble bath to a container. What happens when you mix it in? Does it bubble? Does it smell different? Did it float on the surface before you stirred it around?

- If you have soap flakes you could try adding a few to warm water (temperature safe). Try stirring and whisking. You have added a solid to a liquid. It should disperse and then with enough whisking become frothy and smooth. Discuss the texture, the aroma, what it looks like, the changes, etc.

- You could add a teaspoon of washing up liquid to the water. What will happen? Does it disappear and disperse when you mix it? Give them different utensils to use. Look at the spoons, ladles, whisks, salad servers, spatulas, etc. Think about what the children could use in their water experiments. Not only are they carrying out experiments, they are using key motor skills. You could also talk about what the utensils are made of e.g. wood, plastic, silicon, metal and what colours they are.

- Try some floating and sinking activities. This doesn't just have to be objects. You could see if sprinkled pepper floats on the surface, or salt, shampoo, vinegar, flour, etc. Then you could try coins, a Lego brick, a lolly stick, a key, etc. You might even build a little boat, or improvise with an empty butter tub and see how much cargo it can hold until it sinks. Can you count the items?

- The washing up bowl also makes a great under the ocean scene. You could add shells, a diver, plastic fish, etc. and make up a deep sea adventure. Your child may have a favourite story or film they could use to explore stories.

Words

empty
pour
absorb
liquid
disperse
fill
solid
varnish
float
compare
sink

Introduction

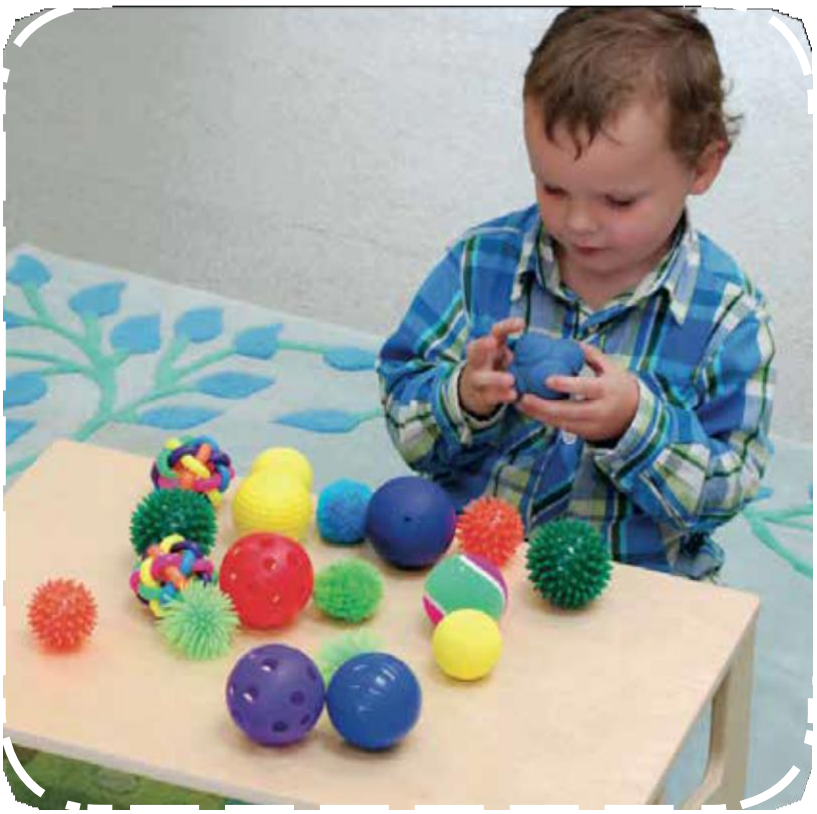
Science activities give children the opportunity to explore and discover as they learn about simple scientific processes, cause and effect and properties. These activities below offer children fun and explorative ways to learn about the world around them.

What can you find?

Around your home there may be a variety of different materials and properties for children to identify and compare. Together you can collect a variety of different materials such as items of fabric, paper, wood, plastic, glass and metal. Some items you find may look like metal but it could be plastic. What material is underneath. Is it plastic? Sort through these items together to discover. Use empty cardboard boxes to store the different items in. You could tally how many of each you have found. Is there more paper or more plastic?

Floating and Sinking

Fill a tray/basin with water and gather objects with your child from around your home. Discuss whether these objects may float or sink and why. Encourage them to think about size, shape and weight of the objects before they place them in the water. Once you have placed the objects in the water talk with your child if their predictions were correct. Children can learn about making predictions and experimenting.

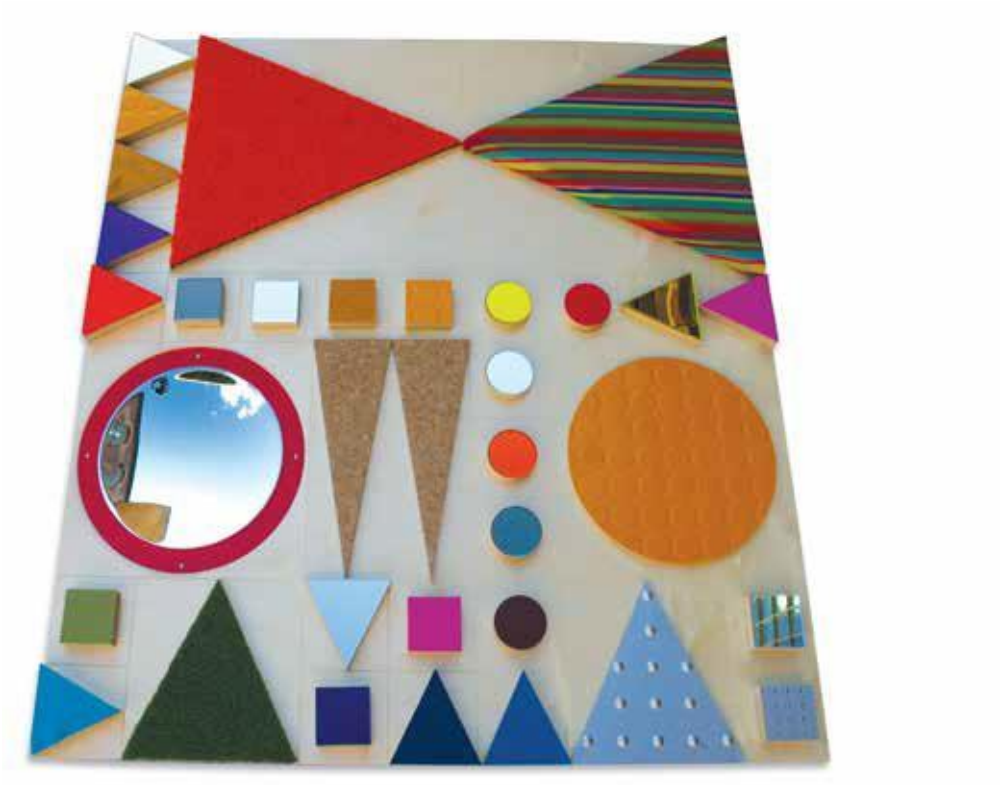


Feely Bag

You could create your own feely bag, such as an old rucksack, an empty tissue box or cereal box (please no plastic bags) with items in from around the house. Use a bag that your child cannot see through. This is a wonderful opportunity for children to explore their senses. Encourage your child
to think about texture and descriptive terms for the objects. Are they bumpy, bubbly, coarse or furry? Children can develop a wide vocabulary by thinking about different texture words. You can use this activity to try and match different items. Can you find two objects that are bumpy or two that are smooth?

Treasure Hunt

You could go on a treasure hunt around your home, searching for metals. You may have a magnet to determine which metals found are magnetic. Not all metals will be. Perhaps you could use a bag or a box to store all the pieces you have found. What colour are they? You may decide to create your own treasure map with hidden treasure at the end.



Natural or Man-made Materials?

Talk about and try to locate things that are natural materials, e.g. wooden items, shells, sand, rocks, wall, leaves, etc. Can you find man-made materials, e.g. plastic?