

Top Ten Authentic Resources

All children need access to authentic, real life resources that they can use to explore their growing mathematical understanding. Younger children may need support in using these objects, whilst older children may use these independently in their learning.

Measuring tapes

Children can use tape measures to support their role play as builders, shop keepers or health visitors. Many will become fascinated with measuring any thing in sight and make the link between earlier non standard measures (e.g. hand spans or strides) and standard measures such as centimetres.

Real coins

Real pennies are cheaper to provide than plastic replicas and children get so much more from the experience. They can sort, count, stack them in piles and use them in role play alongside purses, wallets, piggy banks and shopping bags.

Balances

Children need experiences with spring balances and real kitchen balances as well as scales. There are few things more satisfying than getting an accurate balance between items such as three potatoes and a quantity of pebbles. Model the use of a metal kitchen balance in real life cooking experiences, sometimes using recipes with eggs to balance.

Scales – kitchen and bathroom

Many children only see digital scales at home. It is great if they can use mechanical bathroom scales to weigh themselves and ‘heavy’ objects, watching the dial hand move. They will become very proficient at weighing lighter items on mechanical kitchen scales too, adding a little at a time to reach the correct weight.

Sand timers, kitchen timers and stopwatches

Children can become fascinated with the passing of time – ‘how long is a minute?’. Model the use of kitchen timers in real life cooking and baking experiences and support children as they explore the use of egg timers and stop watches. If they set off a stop watch and mechanical timer as a three minute sand timer starts, does the timer ‘ping’ at the same time the sand finishes and does the stop watch read ‘3 minutes’?

Clocks and watches

Many children only see digital clocks and watches in everyday life and increasingly adults use mobile phones and tablets instead of watches.

The opportunities to explore old analogue clocks and watches, and move the hands around to set times that are important to them are important. A working analogue clock that can be seen on the wall is helpful too.

Measuring jugs, spoons and kitchen equipment

Real metal and plastic measuring jugs, measuring spoons and assorted spoons, ladles and serving equipment can enhance water and sand play which can replicate real life cooking and baking experiences. Real pots and pans and kitchen equipment in the home corner will offer lots more mathematical opportunities than child sized plastic kettles and tea pots.

Spirit levels and plumb lines

Older children interested in construction and building will become fascinated with plumb lines and spirit levels. Is the table level? Are the posters on the wall really horizontal? Children can use these in construction play too – is the wall they are building with hollow wooden blocks straight?

Address books, calendars, diaries, recipe books and phones

Many adults don't remember phone numbers or use address and phone books anymore as all their information is stored on phones. But it is useful for children to experience the use of real life resources with written numerals and to experiment with mathematical mark making too.

Tinned foods, empty food cartons and real vegetables

Children will find out more about 'heavy' and 'light' and 'full' and 'empty' if they have time to explore real food packaging and real food. How heavy is a shopping bag filled with real potatoes? How many parsnips fit into the box? Identical cartons can be stacked, similar cartons can be compared. What is the same, and what is different?