

What is a schema?

Schemas are described as patterns of repeated behaviour which allow children to explore and express developing ideas and thoughts through their play and exploration.

The repetitive actions of schematic play allow children to construct meaning in what they are doing. Babies and young children learn best through opportunities to engage in active learning through hands on experiences. These opportunities allow babies and children to problem solve, question, predict, imagine, speculate and develop independent choices as they make decisions in an area they are familiar with.

It is important to understand that children use play to develop a methodical, systematic and logical collection of information through their senses and movements as they interact with practitioners, each other, objects and materials within the nursery environment.

The EYFS states that if as practitioner we support children's schematic play patterns we can build on individual children's interests, therefore taking part in powerful learning opportunities through sustained shared learning experiences.

Through a basic knowledge and understanding of schemas it can support practitioners in understanding their observations of children, which can in turn support the assessing and planning for the children's next steps in development.

Some of the most common types of observed schema include –

Trajectory	Transporting
Rotation	Connecting
Enclosing	Positioning
Enveloping	Orientation

These schemas are explained in more detail over the next pages.

<p>TRAJECTORY</p>	<p>Patterns of movement emerge in which children move their arms, legs and bodies in horizontal and vertical lines e.g. pushing, kicking (horizontal trajectory) and dropping objects or putting things in and out of containers (vertical trajectory).</p> <p>This develops into exploration of straight lines (up, down or horizontal). Babies can be observed reaching out for objects, kicking their legs, opening and closing their hands, waving arms up and down or side to side, throwing, pulling, pushing, pointing, rocking, climbing or stepping up and down.</p>
<p>ROTATION</p>	<p>This is observed when children turn or rotate themselves or objects. They will spin, twist, roll and turn objects and roll their bodies. Rotational schema are often energetic and children will be seen running and spinning in circles, riding around and around on bikes or twisting ribbons, scarves and ropes.</p>
<p>ENCLOSING</p>	<p>Children may be observed joining lines or building structures with different materials to form an enclosure. These enclosures can be round, square or rectangular. Children may build fences or walls around objects or fill in an enclosure they have drawn or built. They can also draw borders around their art creations, or may arrange the food around the edge of their plate or ride a bike around and around an enclosed space they have constructed.</p>
<p>ENVELOPING</p>	<p>Children will be observed covering objects or themselves with different materials. Children may be seen to cover themselves, hide, camouflage and conceal themselves or objects. This could include dressing in a number of hats, scarves, necklaces and bangles. Making dens under blankets or using furniture to construct a cave. Children may fill bags with all sorts of bits and pieces from around the nursery, paint or glue over their hands and then peel it off or paint over a picture with a single colour. They may be seen wrapping items in pieces of paper or materials.</p>
<p>TRANSPORTING</p>	<p>Children will become intent on moving objects from place to place, the objects may be carried in their hands, pockets or through filling containers such as buckets, trolleys, wheelbarrows and bags, these collected objects are then placed in piles around the nursery.</p>
<p>CONNECTING</p>	<p>Children will be observed joining things together, tying things up using rope, tape, string or ribbon. They could be seen tying toys together using ribbon, building chains out of objects, fastening fabrics together to suspend things from chairs or trees in the garden. (This can lead to a disconnecting schema where the child builds something that they can demolish through untying knots etc)</p>
<p>POSITIONING</p>	<p>Children can be seen positioning, ordering and arranging objects or themselves. At times children may be obsessive in placing items in the exact place (e.g. on top, next to, in front of, around the edge, beside, behind) of an object or person. The children may be observed lining up objects in order of size, colour or shape. It can also be noted that some children may not wish their food to be mixed together on the same plate.</p>
<p>ORIENTATION</p>	<p>Children will be observed looking at things from different viewpoints such as hanging upside down, looking through their legs, looking at things upside down. Children may enjoy building ramps to see higher up, rolling, climbing or standing on a ledge to see in a higher position. They may also put objects or themselves in different places / positions.</p>



Activities to support the Trajectory schema

- Ⓢ Blow feathers, chiffon scarves or tissue paper
- Ⓢ Make paper planes from folded card
- Ⓢ Drop different objects onto a target (the objects could be different sizes, weights or shapes)
- Ⓢ Tie a length of string to a paint brush and paint with a pendulum action
- Ⓢ Make patterns by rolling marbles in a tray of paint
- Ⓢ Make kites, flags and bunting to use in the garden
- Ⓢ Chase and catch bubbles
- Ⓢ Throw wet sponges at a target
- Ⓢ Drip coloured water, glue from syringes or fingers down across a mirror or piece of plastic
- Ⓢ Make a simple pulley system
- Ⓢ Make treasure baskets containing scarves, leaves, keys, lengths of fabric to flick, twirl and spin
- Ⓢ Different sizes of weights and balls to throw, squeeze or roll
- Ⓢ Water pumps, funnels and plastic piping to move water
- Ⓢ Use paper on an aisle to drip paint down
- Ⓢ Use yo-yos
- Ⓢ Post balls, cars etc down different lengths and sizes of tubing
- Ⓢ Make a simple skittles game with plastic bottles to roll balls into
- Ⓢ Make tracks for wheeled toys to move around
- Ⓢ Spin and twirl ribbons



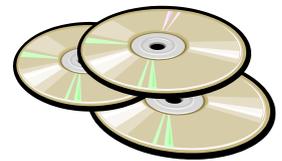
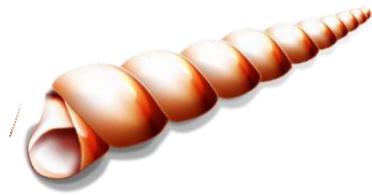
Key words to support the Trajectory schema

- ▶ Fly
- ▶ Spin
- ▶ Twirl
- ▶ Glide
- ▶ Float
- ▶ Drop
- ▶ Bounce
- ▶ Swing
- ▶ Up
- ▶ Down
- ▶ Fast
- ▶ Slow



Activities to support the Rotational schema

- Ⓢ Locks and keys
- Ⓢ Cogs (construction toys)
- Ⓢ Musical boxes
- Ⓢ Explore spirals (snail shells, coils, springs)
- Ⓢ Play with kaleidoscopes
- Ⓢ Mixing and stirring paint
- Ⓢ Make cd mobiles to hang from the ceiling or garden fence
- Ⓢ Make windmills or spiral windsocks
- Ⓢ Cooking Swiss roll, spiral biscuits
- Ⓢ Water wheels in the sensory trays / guttering in the garden
- Ⓢ Different textured dough to make spirals
- Ⓢ Long spaghetti to make spiral patterns
- Ⓢ Fill a salad spinner to paint pictures
- Ⓢ Rotary whisks in bubbly water
- Ⓢ Use paint rollers to make large scale pictures
- Ⓢ Fill treasure baskets with bowls and spoons, bracelets and bangles, cotton reels
- Ⓢ Spanners and screwdrivers
- Ⓢ Explore different sizes of wheels
- Ⓢ Roll cd's down guttering
- Ⓢ Paint, draw and chalk circles, spirals to finger trace or run around outside
- Ⓢ Make windmills or ribbon sticks
- Ⓢ Play with small quoits, large hoops and roll them
- Ⓢ Hand spinning objects from the trees outside



Key words to support the Rotational schema

- ▶ Fly
- ▶ Spin
- ▶ Twirl
- ▶ Round
- ▶ Circle
- ▶ Spiral
- ▶ Dizzy
- ▶ Twist



Activities to support the Enclosing schema

- @ Drape a sheet over a frame to create a den
- @ Use large cardboard boxes for children to hide in
- @ Build a tent with blankets and netting
- @ Set up tunnels, hollow cubes or pop up tents (put cushions and blankets inside)
- @ In the garden set up washing lines to drape fabric over to make a den (can be secured with pegs or bulldog clips)

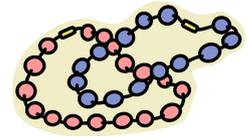


- @ Parachute games that create domes
- @ Put fabric or paper doors onto tunnels
- @ Use shoe boxes to build homes for small world toys



- @ Create burrows and tunnels in wet sand, soil etc in the sensory trays
- @ Make clay or dough caves

- @ Make borders out of paper, twigs for creative projects
- @ In the role play make cloaks, scarves, bandages for wrapping things



- @ Treasure baskets to include bracelets, bangles, necklaces, bandages, scarves, lengths of ribbon, saris or tinsel
- @ Use construction materials to make fences, bridges, arcs and walls to enclose animals in
- @ In creative play use lolly sticks or twigs to frame objects

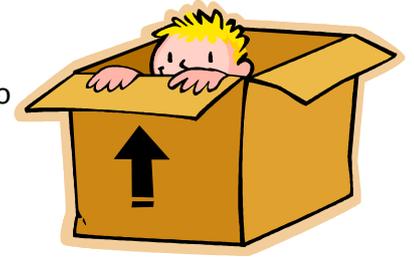
Key words to support the Enclosing schema

- ▶ Enclose
- ▶ Wrap
- ▶ Inside / outside
- ▶ Size words such as bigger, smaller, longer and shorter
- ▶ Corner
- ▶ Side
- ▶ Entrance
- ▶ Exit
- ▶ Contain
- ▶ Positional words such as on top, underneath, beside and on top



Activities to support the Enveloping schema

- Ⓢ Use old socks, pillow cases or cushion covers to stuff things into
- Ⓢ Make sock or glove puppets
- Ⓢ Mark making materials and envelopes of different sizes
- Ⓢ Wrapping paper, newspaper, coloured cellophane, wall paper, string, sellotape and paperclips could be used to make parcels
- Ⓢ Posting toys, Russian dolls, nesting toys and shape sorters
- Ⓢ Role play – wrapping parcels in the post office, blankets to wrap babies in etc
- Ⓢ Purses, boxes, tins, baskets, suitcases, glasses cases, wallets or bags with materials to fill them
- Ⓢ Small blankets to wrap objects
- Ⓢ Bandages, scarves, large pieces of fabric to wrap yourself up in
- Ⓢ Make pasta parcels or wraps as a cooking activity
- Ⓢ Cover balloons, boxes or tubes in wallpaper paste and decorate with string, wool, shiny paper etc
- Ⓢ Play pass the parcel
- Ⓢ Large tubes to post things into
- Ⓢ Make treasure baskets full of fleece, suede, fur fabric etc for wrapping objects
- Ⓢ In the sensory trays use bottles, buckets or pots to be filled and emptied



Key words to support the Enveloping schema

- ▶ Under
- ▶ Over
- ▶ Visible / invisible
- ▶ Transparent
- ▶ Hidden
- ▶ Wrap / unwrap
- ▶ Full / empty



Activities to support the Transporting schema

- Ⓢ Use diggers, tractors, wheelbarrows, trolleys and dumpers in the garden to transport sand, bark, pebbles, balls, cones and natural objects
- Ⓢ Transport small animals, duplo bricks, in boats or foil trays in the water tray or down large pieces of guttering
- Ⓢ Build a small world construction site for moving materials
- Ⓢ Make twig boats to sail down pipes
- Ⓢ Scoops, spades, spoons, bottles, jugs of different sizes in the sensory trays
- Ⓢ Go on a hunt around the garden with buckets, bags etc for collecting things in
- Ⓢ Build pulleys for transporting things up and down or from side to side
- Ⓢ Provide a collection of purses, suitcases, rucksacks and bags for transporting things inside
- Ⓢ Large boxes that can be filled and emptied with other objects
- Ⓢ Use droppers and syringes in the water tray to fill and empty
- Ⓢ Build / draw a road for the cars / bikes to transport things along
- Ⓢ Emptying and filling clothes baskets or drawstring bags
- Ⓢ Stacking toys, sorting toys
- Ⓢ Ice cube trays, teapot and cups that can be filled with rice, pulses etc using small spoons etc
- Ⓢ In the role play make a removal van to support in packing boxes to move house etc



Key words to support the Transporting schema

- ▶ In
- ▶ On
- ▶ Under
- ▶ Empty / full / half full
- ▶ Overflowing
- ▶ All gone
- ▶ Open / closed



Activities to support the Connecting schema

- Ⓢ Threading with ribbon, beads or pasta shapes to make necklaces
- Ⓢ Make paper chains
- Ⓢ Junk modelling with tape, string, glue, paperclips, ribbon etc
- Ⓢ Mixing cornflour and water to make gloop
- Ⓢ Use pipes, funnels, buckets etc in sand and water to make connections
- Ⓢ Build spiders webs with thread
- Ⓢ Use natural materials such as twigs, willow, grasses to weave patterns
- Ⓢ Use a hole punch to thread small pieces of paper together to make mobiles (also add bun cases, straws etc)
- Ⓢ Build a train track or road
- Ⓢ Construction toys that connect in different ways e.g. popping blocks, mobile, art straws etc
- Ⓢ Outside make chalk trails to follow or inside use masking tape to join areas together
- Ⓢ Dressing up clothes using different fastenings



Key words to support the Connecting schema

- ▶ Build
- ▶ Construct
- ▶ Join
- ▶ Separate
- ▶ Together
- ▶ Apart
- ▶ Flexible
- ▶ Rigid
- ▶ Bendy
- ▶ Stretchy
- ▶ Strong
- ▶ Fragile
- ▶ Knot
- ▶ Thread



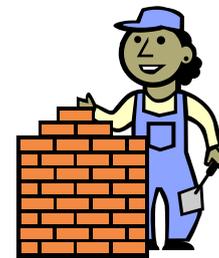
Activities to support the Positioning schema

- Ⓢ Stacking and un-stacking objects
- Ⓢ Lining up toys or materials
- Ⓢ Balancing objects
- Ⓢ Peg boards to create patterns
- Ⓢ Hide and seek games



Key words to support the Positioning schema

- ▶ Inside
- ▶ On top
- ▶ Under
- ▶ Behind
- ▶ Between
- ▶ Next to
- ▶ In front



Activities to support the Orientation schema

- Ⓢ Make peep holes in paper, fabric or boxes
- Ⓢ Posting boxes
- Ⓢ Kaleidoscopes, binoculars, magnifying glasses and mirrors to look at objects and materials
- Ⓢ Outside support spinning, twisting, rolling or spinning
- Ⓢ Build pendulums
- Ⓢ Put mirrors on the floor, ceiling etc to explore different ways of looking at materials



Key words to support the Orientation schema

- ▶ Turn
- ▶ Twist
- ▶ Roll
- ▶ Backwards / forwards

