Recognising and Developing Patterns of Play (Schemas)

Early Years Quality Improvement Team

What is a Schema?

A schema is a pattern of observable, repeatable actions, or a pattern of learning. Children exhibit these when they are playing and trying to find out about the world.





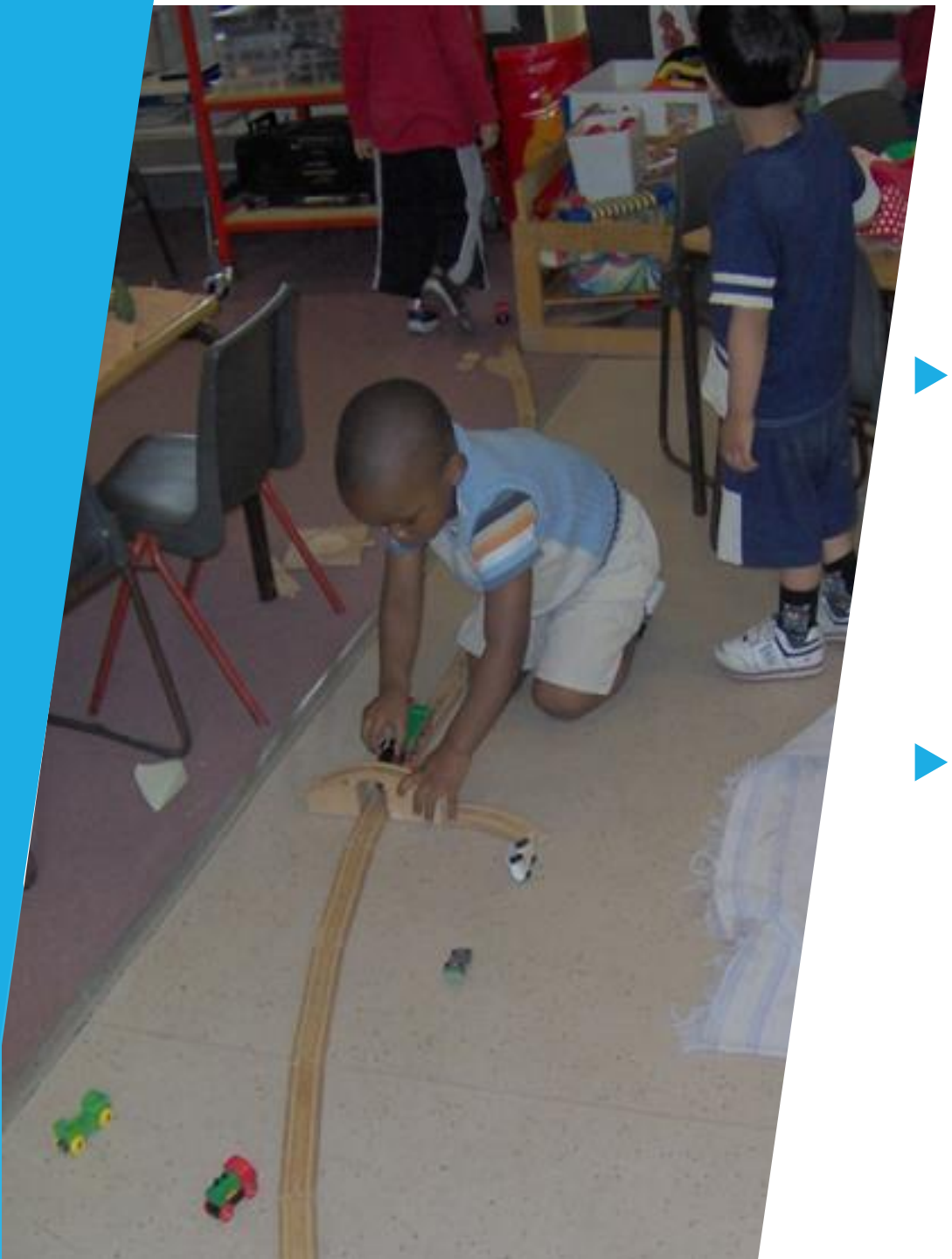
“Schemas are patterns of linked behaviours, which the child can generalise and use in a whole variety of different situations. It is best to think of schemas as being a cluster of pieces which fit together”.

Bruce 1997

Development of Schemas

As a baby gains experiences through movement, sound, texture, light and pattern, taste and smell it starts to respond to its surroundings and schemas start to develop. These schemas become more complex as actions are repeated.

Children manifest their schemas dynamically through movements and actions such as dancing round, climbing up or crawling into, and configuratively in their drawings, paintings and models.



Why look at Schemas?

- They are child centred and positive. Looking at a child's schema involves starting from where the child is at and what the child can do, not what s/he cannot.
- They encourage us to respect the child's interests and enable practitioners to plan for and interact with the child in a more positive way.

Continued

- Schema-spotting helps to avoid making assumptions and judgements about a child's capabilities since it depends on close observation.
- Behaviour seen as negative may be understood to be part of a schema, so that children are not automatically labelled as naughty.
- Talking to parents about their child's schemas is a very helpful way of working together.
- Schemas provide a positive way of interpreting the child's actions, in which learning and behaviour are closely enmeshed.



Supporting Schemas

By providing:

- Flexible materials and resources
- Space
- Time

By thinking about:

- Rules and routines
- Planning for individual children

Types of Schema

There is no definitive list of schemas and children may be exploring a variety of schemas at one time.

Some examples of schemas:



Transporting

A child with a transporting schema moves everything from one place to another. This is a common schema in toddlers.

If you have transporters nothing will ever be in its place!

Children who transport may:-

- Put sand in a bucket and move it to another area.
- Take things from one place to another in prams, trolleys and bags.
- Go back and forth bringing you items from around the room.







If you have children with transporting schemas provide items such as:

- A collection of bags and boxes
- Pushchairs, trucks, trolleys, wheelbarrows etc.
- Pasta, corks, conkers etc - and other items to transport

Connection

A child with a connection schema is interested in joining things together.

These children may:

- Tie your chair legs (or even your legs) together with string/wool/rope
- Love joining the carriages of trains together and taking them apart.
- Enjoy all sorts of construction toys
- Glue/tape together scrap materials into long connecting structures
- Show a series of linked parts in their drawings and paintings







If you have children with connection schemas, provide items that can be used for joining together e.g.

- Tow trucks and cars
- Train sets
- String, rope and wool
- A range of construction apparatus
- A range of fastening materials and tools e.g. masking tape, paper fasteners, staplers etc.

Trajectory

A child that has a trajectory schema is interested in things, and themselves moving in straight lines up and down or across. It is a very common schema and one that young babies will often display, explaining why they love to drop things from their highchairs.

Children with a trajectory Schema may:

- Always seem to be running around
- Likes throwing things
- Likes to play with running water
- Likes pushing things in a straight line





If you have children with trajectory schemas you might like to:

- Provide soft balls to throw and roll
- Blow bubbles to be caught
- Allow them to play on swings, slides and bikes
- Provide opportunities to pour water
- Provide lots of opportunity for large physical movement

Rotation

A child who has a rotation schema is interested in things that are circular or rotate

These children may:

- Enjoy playing with the wheels on toys
- Like spinning around
- Enjoy playing with water wheels in sand or water
- Have a particular interest in toys that spin
- Love watching the washing machine







Children with rotation schemas can be provided with resources such as:

- Cars and toys with wheels
- Spinning tops and toys that spin
- Push along toys
- Windmills
- Barrels, hoops and car tyres outside
- Streamers/scarves for making circular arm movements

Enclosure

A child who has an enclosure schema loves to put one thing inside another.

These children may:

- Like putting things in bags and pots
- Build enclosures with bricks, Lego or large blocks and crates outside
- Climb into boxes
- Love filling up buckets with sand
- Draw or paint pictures then draw circles, lines or boxes around them

If you have children with enclosure schemas they will appreciate it if you provide:

- Pots and things they can fill them with
- Containers to fill in the water tray
- Dry play such as pasta with pots to fill
- Large pieces of fabric to create tents/dens, especially outside
- Large cardboard boxes to get inside
- Bricks, blocks, crates etc. to build enclosures with





Envelopment

A child who has an envelopment schema is interested in enveloping themself and objects or a space. It is very closely related to and often an extension of enclosure.

A child with an envelopment schema may:

- Like to wrap themselves in material
- Make parcels containing everyday objects
- Cover their hands and body with paint
- Paint a picture and then cover it with a layer of paint





If your children have envelopment schemas they will like:

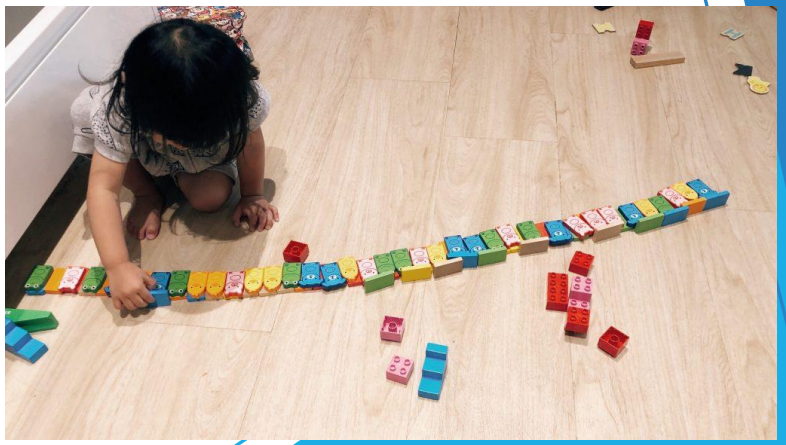
- Blankets to wrap dolls and themselves in
- Dressing up clothes
- Large pieces of fabric
- Paper and newspaper to make parcels
- To be allowed to paint themselves

Dynamic Vertical (and Horizontal)

These children may show interest in all things up and down – length and height.

Children may:

- Be particularly interested in climbing, stepping up and down or lying flat.
- Build very long or tall constructions
- Draw or paint vertical or horizontal lines
- Combine the two to form crosses or grids
- Show interest in cooling trays, grill or nets









Children with dynamic vertical and horizontal schemas would appreciate:

- Garden canes and sticks
- Tubes and long boxes to model with
- Space to build long or tall structures
- Climbing apparatus/ladders
- Oven grills/fences and long strips for weaving

Other Schemas

One-to-one Correspondence

Children may glue a button inside each bottle top in a collage or place one object inside each box, or one animal on each brick etc.

You could provide:

- Containers with compartments such as ice cube trays, egg boxes, bun tins, empty chocolate box/biscuit tin inserts, etc.
- Sets of small boxes or tins
- Buttons, pebbles, shells, conkers, pom-poms, playdough (any collection of items)





Ordering/Positioning

You may see children arranging, ordering and positioning items obsessively, lining things up in order of size, colour or shape

A child may produce paintings or drawings with ordered lines or dabs, collages or constructions with items of scrap carefully glued in sequence. S/he may place blocks, vehicles or animals in lines and begin to show interest in “largest” and “smallest”



Resources to offer children might include:

- Russian dolls (or similar)
- Collections of boxes/tins that can be ordered by size and fit inside each other
- Sets of bricks that include different sizes/colours
- Collections of ribbons/trimmings of different length/width
- Different lengths and widths of paper strips for collage
- Collect sticks and twigs together for children to order by length









Transforming

A child may become interested in materials which change shape, colour or consistency e.g. ice melting, potatoes cooking, clay hardening, paint colours mixing etc.

Circles

Circles appear in drawings and paintings as heads, bodies, eyes, ears, hands and feet. They are also used in representing animals, flowers, wheels, the sun, and a wide variety of other things.

Dab

A graphic schema used in paintings randomly or systematically to form patterns or to represent e.g. eyes, flowers or buttons.

Why do we need to know about Schemas?

- So that we can understand what children are doing and why
- So that we can provide appropriate resources and experiences
- So that we can recognise schema related behaviours - children who appear to be flitting from one activity to another may be exploring an idea or concept in depth

- So that we can support children with similar schemas – those who have similar schemas will play together more harmoniously than those children whose schemas are very different.
- Schemas develop in clusters – sometimes they are very obvious and sometimes they seem to disappear
- Children with SEN have schemas but they may need additional help in applying them to a range of situations



Working with Parents/Carers

Communicating and sharing examples of children's interests and schemas can create high quality opportunities for extending children's learning and help parents to understand some of their children's "strange" behaviour.

"I'd never heard of schemas until Isaac's key person told me about them and how she was giving him lots if things to wrap up because he loves doing this. Now I know why he is forever putting things in the tea towel, toys in socks and putting his blanket over the cat."

What Next?

Have a go at looking for patterns of behaviour in your children:

- Observe individual children to identify schematic behaviour
- Choose one schema for a week and see if you can identify examples of it in the children
- Check your resources and activities to see if you provide opportunities for children involved in one or more schema