

Learning from Froebel...

Occupations

Professor Tina Bruce examines the theory behind Froebel's Occupations, and *Jane Dyke* reveals how it is being put into practice at her settings

ABOUT THIS SERIES

This six-part series aims to:

- convey Froebel's continuing importance as an early years educator and thinker
- make links between the EYFS and Froebel's principles and approach to early development and learning
- demonstrate 'Froebel in action' at Yellow Dot nurseries, Hampshire, which piloted training courses designed to help PVI settings embrace the Froebelian approach.

Co-written by Froebelian expert Professor Tina Bruce and Yellow Dot founder and owner Jane Dyke, the six articles will cover:

- the Gifts
- the Occupations
- the place of nature in learning
- the symbolic life of the child
- the importance of nurture
- self-discipline rather than extrinsic motivation.

Linked to the series is a set of posters produced in association with Community Playthings (www.communityplaythings.co.uk), which will be taking part in this year's bicentenary celebrations of the founding of Froebel's school in Keilhau, Germany.

The language of Froebel's philosophy of education can be confusing to the modern practitioner – his Occupations have nothing to do with 'people who help us'.

They do, however, link to a staple of early childhood provision: the workshop area – though this term is less nuanced than what Froebel envisaged.

The Occupations incorporate activities such as exploring clay, woodwork, collage, cooking, parquetry, sewing, weaving, drawing, painting and building with construction kits. More specifically, they relate to explorations of solid and flat shapes (3D and 2D), lines and points through the provision of open-ended resources. Through the Occupations, children can:

- represent, be inventive and engage creatively and imaginatively
- build their physical competencies
- make links to everyday life, nature, knowledge and understanding
- be empowered to move from the here and now to the abstract (so laying the foundations of literacy and mathematical understanding)
- develop dispositions and attitudes that will benefit them in the adult world of work.

THE FORMS

The learning potential of the Occupations can be expressed through what Froebel called his Forms, which work together as a whole approach in supporting children's learning.

Everyday Life The Occupations enable children to represent aspects of their lives. Cooking, mending and making things are also purposeful, meaningful and relevant. With adult support, children can make connections between these activities and their home, community, cultural experiences and sense of identity.

Beauty The Occupations encourage creativity and expressive ideas



in relation to symmetry, pattern and harmony, which bring fulfilment. **Knowledge** The Occupations provide links to mathematics (such as shape, size, magnitude, sequences, numbered and alternating patterns), the creative arts, stories and experiences represented from nature, singing and dancing, making music, nature, the humanities and sciences.

MAKING THE LINKS

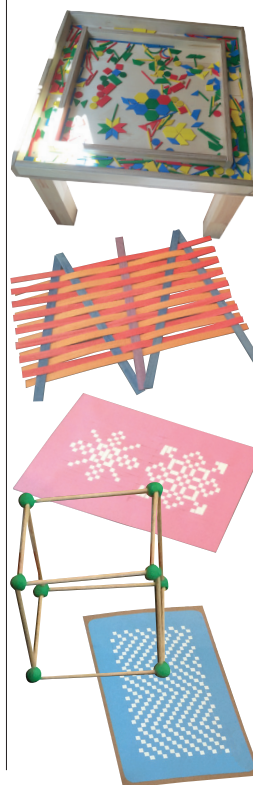
The wholeness of the child and the interconnectedness (unity) of experience lie at the heart of Froebelian philosophy. Hence the Occupations link with all the other elements of Froebel's approach to early education, giving depth and breadth to the richly varied experiences that the Occupations offer to young children.

THE GIFTS

Froebel's Gifts are six sets of 3D solid shapes (cubes, cylinders and spheres) that allow children to make connections in their learning (see Part 1 of our series in *Nursery World*, 23 January-5 February, or at www.nurseryworld.co.uk).

The Occupations expand that solid world by using a great diversity of materials and introducing 2D shapes

Below: The Occupations enable explorations of solid and flat shapes



and linear and point work. These are continually linked to the everyday world of the child, helping them move from the concrete to abstract thinking. Froebelians have always argued that only through exploring a solid world can children come to understand its more abstract flat, linear and pointed aspects.

Together, the Gifts and Occupations represent a set of resources and experiences that enable young children not just to discover, to hone and expand their skills, ➤

knowledge and understanding, but also to represent, invent, be creative and to use and apply these in worthwhile ways in the real world (for example, cooking, woodwork and constructing). The child is being equipped for the future world of worthwhile work.

SHAPES, LINES AND POINTS

The Occupations provide children with opportunities to explore all elements of shape, for only then will the child be able to deconstruct shape, make connections to their everyday world and move from the concrete to the abstract:

3D shapes Experiences here include exploring clay, woodwork, shapes with wet sand, pebbles and construction kits.

2D shapes Painting, drawing, paper-cutting and parquetry, which is still offered in many early years settings. Felt boards are also popular, and children begin to make their own pictures. With these shapes, children can make other shapes, patterns or pictures relating to people, nature and everyday life – within a frame, or without borders.

Lines Sewing, weaving, threading, drawing and playing with sticks. Children have always loved sticks, and creating patterns and pictures with sticks is something that fascinates young children all over the world. Paper-folding is another way of making lines. Making paper aeroplanes is a popular activity, while weaving with paper gives children experience of the flexible (bendy, curved) line, as does working with string, sticky tape, glue and ribbons.

Circles Exploring wood and metal

rings and flexible lines that curve to make whole, half and quarter circles (so helping children connect with the sphere and cylinder of the Gifts).

Points Stringing and building with sticks and peas (see below). Another way of exploring points is to encourage children to roll out a lump of clay, place pieces of paper over it, then make pin pricks through the paper to create patterns. Paper-punch work makes a link between drawing and sewing.

STICKS AND PEAS

Nowadays, children are provided with expensive construction kits, but Froebel introduced something that still has benefit today, known as sticks and peas. Consisting of cocktail sticks and either peas or pea-sized pieces of clay or Blu-Tak, this 'construction kit' enables children to create wonderful constructions, such as geodesic domes, and is a perfect example of line and point work, which come together, making a hollow solid. Construction kits have pieces that connect and join, whereas the Gifts (wooden blocks) are free-standing.

CREATIVITY AND MATHS

Importantly, there is no set linear order to the way in which the Gifts and Occupations should be offered to children. But while the learning is not in prescribed steps, there is still a beautiful mathematical wholeness about the Occupations in the way that 3D solids, 2D shapes and lines and points relate and connect to each other.

Mathematics is very beautiful when experienced in this way, and



MORE INFORMATION

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numbers, patterns, sequences, scale and all sorts of mathematics, chemistry and physics emerge in tangible ways for children. It is no surprise, then, that Froebel was a mathematician and crystallographer.

TRANSFORMATIONS

While Froebel's wooden Gifts can be rearranged or balanced, they cannot be transformed. Transformation, however, is central to the Occupations, which enable children to explore both reversible and irreversible processes. These transformations enable children to make links to the world of work, nature and science, as well as empowering the development of creativity.

Occupations such as parquetry, sticks and rings can be aligned, made into patterns, interwoven and then rearranged. The transformation is reversible. Sewing and knitting can be unpicked; clay can be returned to its original form; sand can be transformed from dry to wet, and then dried again.

Other Occupations can never be returned to their original form. Paint cannot be removed wholesale from a canvas; pieces of wood and sawdust created in woodwork can never be a tree again. Likewise in baking and cooking, flour made into dough and baked can never again be grain, just as an egg once broken can never return to its whole.

PLAY AND WORK

Of the many benefits of the Occupations to a child's learning and development, we cannot underestimate their potential for promoting the raft of attitudes that benefit children as adults, particularly in work.

Froebel was fascinated by the connections between childhood play and adult work. He saw play as the highest level of a child's development, arguing that it is not something trivial. He felt that through their play children begin to develop important attributes that they need in order to work in adulthood with commitment, skill, understanding and with attitudes that bring high standards, creativity and care about the quality and enjoyment of their contribution to the world of work or as volunteers in worthwhile projects and causes.

Just as childhood play should be deeply satisfying, so Froebel believed adult work and community participation should be – employers of today need to note this. ■





In practice

How one group is putting the Occupations to good use. By *Jane Dyke*

Froebel's Occupations were particularly important in developing children's understanding of 3D and 2D, and promoting problem-solving and physical skills. They were vital too in opening up opportunities for children to represent and be creative – largely through the provision of open-ended resources.

After our Froebel training, we were excited by the Occupations and keen to introduce them into our practice; and we had to admit that our efforts in providing appropriate activities with open-ended resources were quite erratic.

Some of our nurseries provided clay occasionally, while others introduced woodwork possibly in the summer term. What was missing was continuity in children's experiences and opportunities for them to be creative and to develop particular skills. Clay and woodwork were certainly not part of our continuous provision. We also realised that we focused on outcomes, rather than on open-ended resources and giving children control of the learning and creative process.



Clay was one of the resources introduced by Yellow Dot after their Froebel training

Underpinning all the changes that we have made are Froebel's Forms of Life, Knowledge and Beauty, and the Characteristics of Effective Learning.

CLAY

We started by introducing clay:

Forms of Life and Knowledge We talked to the children about where clay comes from and showed them examples of what clay is used for, such as making cups and bowls. We changed our role-play sets from plastic to china and even went to the New Forest to dig out our own clay.

We encouraged the children to explore the clay through their senses and also by adding water. And we explained how to look after the clay so

that we could keep it and return to it, with a view to it becoming part of our continuous provision.

Forms of Beauty We introduced other natural objects and explored printing using shells and sticks, which resulted in wonderfully detailed prints in the clay.

We observed how, and if, our resources were being used and dispensed with a lot of plastic. We coined the phrases 'less is more' and 'natural is best'. We recycled a lot of toys and equipment and started to look at everything with our new Froebelian eyes, thinking Life, Knowledge and Beauty, open-ended and natural.

PARQUETRY

We introduced parquetry, which involves making patterns using 2D geometric shapes. The wooden shapes that we chose to provide were equilateral and right-angled triangles, circles and half circles, squares and rectangles.

Some of our children delight in exploring shapes in this way, creating patterns and pictures. Being exposed to the shapes and handling them more consistently has enabled the children to develop their knowledge of the properties of 2D shapes and encouraged mathematical language development.

STICKS AND RINGS

As well as collecting our own, we also bought sticks and rings from Cosy (www.cosydirect.com).

Forms of Life The children were keen to represent their lives in two-dimensional ways – by creating, for example, a house, box or star. Scaffolding their learning in this way supports self-esteem as they became more familiar with the physical properties of the resources.

Forms of Knowledge The sticks allow the children to explore mathematical concepts such as addition, subtraction, top, middle, bottom, greater than, less than, as well as 2D shapes.

Forms of Beauty Adults model how to make symmetrical shapes and patterns, showing how things can be added to and developed or taken away from and developed. The children need time and space in order to develop their ideas and explore their patterns and creations.

We found that the children would naturally make a square or rectangle, and then go on to use these new natural resources to make art work, patterns and pictures. We have ➤

We changed our role-play sets from plastic to china and even went to the New Forest to dig our own clay

EYFS BEST PRACTICE

now transferred this activity outdoors, where children use sticks, leaves and 'debris' found in the garden to make 'frames' and create their own art work.

WORKSHOPS

Over some months we decided to create 'workshops' within our Kindergartens to include clay, 'tinkering' (when the children would take apart old electrical items or explore nuts and bolts), woodwork, sewing, as well as collage, painting and junk modelling.

These are still a work in progress as we continually reflect and observe our children. Working through the Froebelian principles, which complement the Characteristics of Effective Learning, is enabling our children to become much more independent learners. As we observe our children – and let's face it, 'our work is based on observing children' (as early years consultant and Froebel trainer Stella Louis reminded us), we are continually assessing where we are and planning where we need to provide further opportunities.

The Occupations have given us a real vehicle to develop skills and learning; they are part of our lives and have given us the opportunity to pro-



vide exciting provocations which can develop all areas of the EYFS. Recently we took the children to the local recycling centre to find discarded electrical items. The staff at the centre were brilliant with the children and let them

Sticks can be used as a great natural construction kit

have a good look around. The children were able to collect a good selection of random everyday items to take back to the nursery to take apart and explore.

The Occupations have also seen an influx of parents and grandparents coming in to share and teach our children sewing, knitting, woodwork and crochet skills. The joy for the parent, grandparent and the key person, not to mention the child, when the latter completed a scarf for a doll was immense. The concentration, commitment and determination and sense of achievement was palpable.

CLAY: TOP TIPS

- When setting up the table, cover it with hessian (the hessian acts as a placemat for the clay and collects the clay dust, enabling the table to be cleaned more easily) for the children to work on. Alongside, provide a basin so that the children can quickly rinse their hands before washing them properly in the sink, and always provide aprons, as clay won't easily come off the children's clothes.
- Where possible allow children, with adult supervision, to cut off their own lump of clay using a string cutter.
- Make sure each child has a large lump of clay to manipulate – the size of a Rubik's cube or bigger.
- Use clay as an open-ended experience. Talk to the children about where the clay comes from and encourage them to explore it through their senses – sight, smell, touch and sound.
- Let children explore the clay for as long as they wish and need to.
- Show them how the consistency of the clay changes when wiped with a slightly wet sponge.
- Model how to print on the clay, using natural resources, such as shells and sticks.
- Intervene as appropriate, talking to them when necessary as they investigate the clay, or letting them explore quietly on their own.
- As they observe other children representing animals, people and houses, encourage them to develop their own ideas, but don't stipulate what they should make.



A FROEBELIAN JOURNEY

We are on a journey, and change, even good change, takes time. Developing practitioners' knowledge and understanding is key to embedding change. Providing open-ended provocations and opportunities for children to persevere and master new skills and knowledge is exciting, but also exhausting. It requires the team to be fully engaged.

Froebel said, 'Play is not trivial, it is highly serious.' Tina Bruce says, 'Children choose to play; they cannot be made to play.' As we slowly tweak our practice to become more Froebelian, our children are becoming more purposeful in their play. The occupations are giving the children more opportunities to be inventive in their play, the opportunity to develop problem-solving, reasoning and numeracy, as well as physical co-ordination and how to manage risk safely. ■

CARING FOR THE CLAY

- Pick or brush up immediately any pieces of clay that fall on the floor.
- Store the clay in a bucket with a bin liner and lid.
- To stop the clay drying, divide it into lumps, make a thumb print in the centre and pour in water.
- When tidying, wash any resources that the children have used outdoors to avoid blocking the drains.
- If the children wish to keep something that they have made, dry out the clay and give the children opportunity to paint it.