Practical Pre-School Books

Sensory Play

Play in the EYFS

Fully revised and updated to reflect the 2012 EYFS

Contents

For Freya and Zach, for teaching me all they know about sensory play.

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Introducing sensory play

What is sensory play?

Imagine a walk in the woods; a visit to the seaside; a child mixing and splodging paint with a fat brush, or better still their fingers; or building with smooth wooden blocks. What do these all have in common? Each experience is inextricably linked to the senses. For example, the woodland walk conjures up crunching leaves underfoot while dappled light casts on tree trunks ripe for climbing. A trip to the seaside offers the satisfaction of shaping wet sand, creating channels for frothing water and the taste of salty air. Painting gives the pleasure and cold silky feel of paint or the visual explosion of colour as shades mix and loop. Block play offers the opportunity to create imaginary castles with cool wooden blocks satisfyingly clinking. The essence of the experience is both captured and conveyed through the colour and lights, sounds, feel, warmth, smells and taste.

Activity

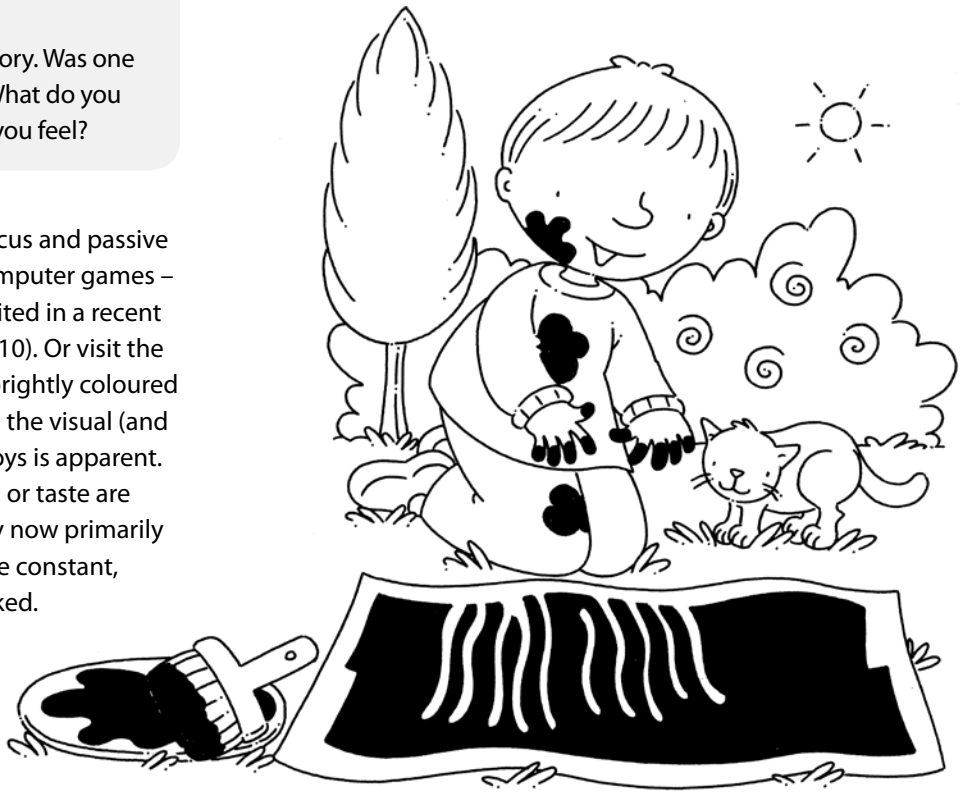
Try to imagine a vivid childhood play memory. Was one or more of your senses really prominent? What do you think makes it so vivid? How does it make you feel?

Compare these experiences to the visual focus and passive nature of watching television or playing computer games – just two of the trends in 21st century play cited in a recent research project (Sue Gascoyne, January 2010). Or visit the average toy shop, with shelf upon shelf of brightly coloured toys, some of which flash, bleep or talk, and the visual (and to a lesser extent auditory) focus of many toys is apparent. Opportunities for children to actually touch or taste are often discouraged, or limited to plastic. Play now primarily takes place indoors, where temperatures are constant, and smells and environmental sounds masked.
All this contributes to play where sensory experience is limited. Contrast this with the vivid childhood play memories you may have of running barefoot through grass, making mud pies and rose petal perfume and the appeal of multi-sensory play is evident.

Activity

For a reminder of the sensory limitations of plastic, close your eyes and place your hand in a bag of brightly coloured plastic toys. As the visual stimulus is removed, the appeal and 'differentness' of these toys quickly disappears.

For something so fundamental to children's growth and development, definitions of sensory play itself are remarkably elusive! Sensory play is essentially play that engages one or more of the senses. As such, most play clearly has the potential to be sensory. Sensory play differs to other types of play in that the sensory focus adds a significant and integral extra dimension to the play. Usher (2010) defines



sensory play as "*play that provides opportunities for children ... to use all their senses, or play that encourages the use of one particular sense*". Sensory play is commonly accessed in the outdoor environment, and some forms, like sand and water play, can be intrinsically messy – although this is something for us adults to embrace rather than dread! As the previous examples amply show, many sensory-rich play opportunities surround us in our everyday lives, without costing a penny. Most children are hardwired to know how to 'do' sensory play and need no instructions when faced with sand, mud or water. Rather it is us adults who may have lost sight of the awe and wonder that such open-ended materials offer, the limitless possibilities and opportunities for quiet reflection, and the fact that some mess or even the momentary appearance of disorder (it is perfectly natural for children to combine objects and resources), is definitely worth the effort. The essential ingredients of quality play have been identified by some as space, time and materials. When it comes to sensory play this is all the more important as children need to be given the space, time, and permission to truly experience the sensory-rich qualities of materials.

Our amazing senses

If asked about our senses, most people would probably cite the five senses of sight, smell, sound, touch and taste. Although these external senses are vital, as we will discover in chapter two, the lesser-known but crucially important inner or 'sixth' senses detect position, balance, movement, and more. Similarly, when we think of our senses, our eyes, ears and nose spring to mind, but really our whole body is a sensory organ as the skin around our sense organs, such as the inner ear, is packed with receptors to detect touch, pressure, heat, cold and pain. From birth, babies' senses are tuned to detecting touch, space, their mother's smell, voice and repeated sounds. Hughes gives the example of a baby who had already grown accustomed to the theme tune of Coronation Street from exposure in the womb and on hearing it as a newborn, turned towards the sound and "suddenly became alert and responsive" (Anita Hughes, 2006, p.18).

Processing sensory information

Every sensory experience provides the foundations upon which all subsequent knowledge, thought and creativity are based. Each time a child (or indeed an adult) encounters a sensory stimulus, a neuron (brain cell) connects to another neuron, establishing new connections in the brain. Signals flow along these complex neural networks, from one neuron to another, allowing the brain cells to communicate with each other by relaying information about emotions as well as everything we see, hear, taste, touch and smell. Each new sensory stimulus adds to the network, while repeated experiences increase the thickness and strength of the connections, helping signals to travel faster (Nancy Wartik & LaVonne Carlson-Finnerty, 1993). In this way each of us will develop a unique network of nerve connections created from our own unique sensory experiences, which means that "*the richer our sensory experiences the more intricate will be the patterns for learning, thought and creativity*" (Carla Hannaford, 1995, p.30).

Returning to that walk in the woods, when we hear the word 'woods' all our experiences relating to woods come to mind (see Diagram 1). Be it climbing trees, the feeling of achievement having balanced on a fallen log, feeling the texture of bark, scrunching leaves, looking up through the leaf canopy or walking through leaf litter. Memories of the rush of air on the face and scent of the forest while cycling through a wooded glade, the thrill of playing hide and seek or being chased, the exhilaration of swinging on a rope or warmth of dappled light. Smelling moss and rotting leaves, foraging for fungi, the satisfaction of peeling away rotten bark and revealing scurrying woodlice, intricate patterns made by the sun and leaves, the sound of bird song and so on. All these different sensory-rich experiences can potentially be accessed from the word 'woods'. Broad-based knowledge depends upon a multitude of separate multi-sensory images and memories, developed and reshaped from a wealth of separate, yet interlinked, sensory experiences. Without the unique sensory experiences and memories that we attach to words, they would lack resonance and real meaning. Thus someone can only truly

Our amazing senses

It is scarcely imaginable for us to think about life without our senses. Using the analogy of a windowless, lightless house with solid metal walls and roof we can picture our sense organs as windows, through which we discover the world and ourselves. With no contact with the outside world, it would be like having no sense organs to know what is happening inside or around us (Sarah Riedman, 1962, p.13). The importance of sensory-rich experiences cannot be over emphasised in providing the source of all learning and enriching our daily lives. To better understand this, this chapter introduces the brain and each of the senses, explaining how they work and providing ideas for increasing sensory stimulation.

The brain

The cortex is the softly folded outer surface of the brain that many of us will think of when we hear the word brain. About 3mm thick and covering about 2000cm^2, in area, the cortex is formed from about 10 million nerve cells (John Brierely, 1994). Each neuron is made up of a brain cell with tendril-like branches called dendrites at one end, and a length of axon and branch-like synapses at the other. The function of the dendrites is to receive chemical signals from other synapses, thereby establishing connections. Beneath the grey outer surface of the neurons is a white pulpy layer formed from millions of axons. The cortex is divided into two distinct halves, left and right hemisphere, which give it its distinct walnut-like appearance. The left half primarily focuses on speech and movement and the right visual patterns, but this is to oversimplify its complexity. The two sides of the brain are connected by the corpus callosum, a thick band of nerves which enables the two halves to work in perfect harmony.

Diagram 3: The 4 lobes of the brain

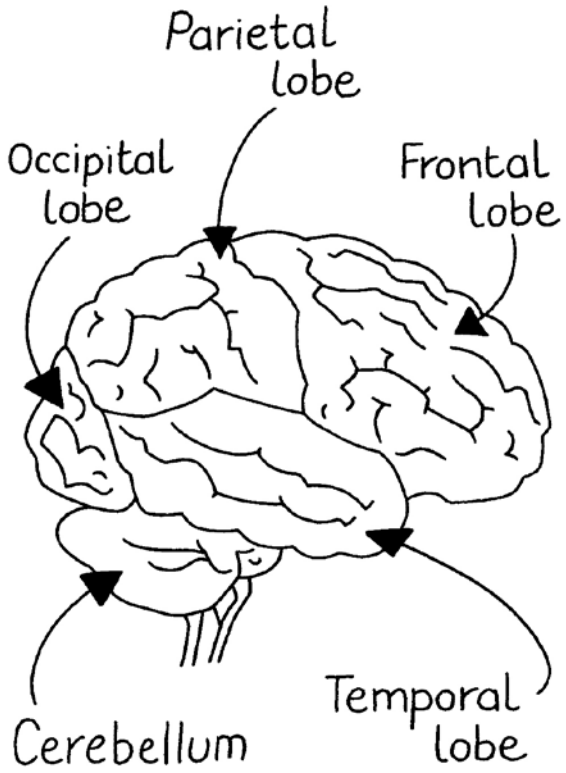


Table 2: Different senses

External senses	Internal senses
Visual (sight)	Vestibular (balance)
Olfactory (smell)	Proprioceptive (position in space)
Auditory (sound)	Kinaesthetic (movement)
Tactile (touch)	Baric (weight)
Gustatory (taste)	Thermic (temperature)

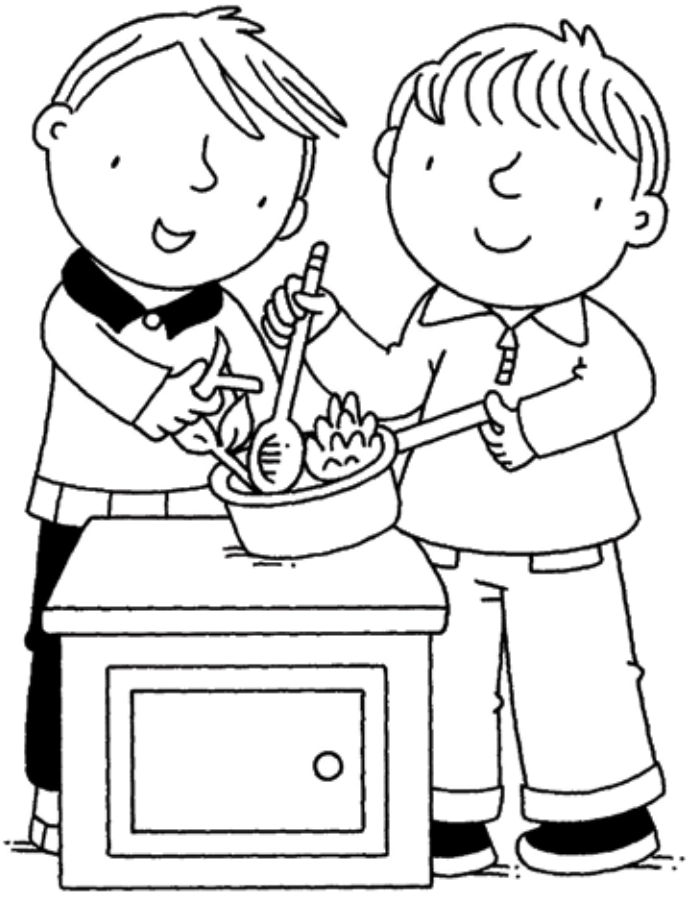
Sensory play in action

In a world in which our senses are bombarded, you don't have to look far to find sensory-rich play experiences. There are ample opportunities for engaging all the senses through play outdoors, sand and water play, a treasure basket, a collection of heuristic play objects, or other sensory-rich resources. All these activities also offer a multitude of other benefits that make them perfect for supporting the EYFS. Surrounded as we are by resources which have the potential to offer sensory-rich play, choosing where to start and what to focus on in this chapter was quite a challenge! Countless homemade and commercial resources are available to meet this need, but as most settings can access play outdoors, sand, water and a range of household, recycled and natural objects cheaply, freely and easily, it is these resources which will form the basis of our focus. Much of the beauty and appeal of sensory play lies in its flexibility and child-led focus. If we as practitioners use our knowledge of children's interests and our own imagination we can support their play and learning. The following factors are a good starting point in planning sensory-rich provision.

Simplicity

If you've ever commented on how children spend more time playing with the cardboard box than the present it came in, then you will have witnessed some of the appeal and excitement of open-ended resources. When it comes to children's play with toys, generally the simpler the resource, the better. Take the boy aged three to four years whose kitchen role-play never got beyond tipping a basket of play food and plates on the floor. Each time he momentarily paused to look at the toys before walking away. Contrast this with his deep engagement in domestic role play using the objects from a treasure basket. In spontaneous play sessions lasting over an hour (some with sand, others just using the objects on their own) he was observed repeatedly mixing, tossing a chain in a measuring cup ('spaghetti 'perhaps), and wiping up an imaginary spillage with a cloth. Similar child-led play was observed in outdoor play, when he created an exotic stew of spices, yeast extract, water, soil and plants! This creative play involved searching cupboards for the 'right' ingredients, carefully tipping out spices, scraping gooey yeast extract from a spoon and mixing his fragrant concoction. Judging by the play food alone, it would be easy to assume that domestic role play had little to offer this little boy. But that would miss the point and the potential interest and appeal of open-ended resources as a driver for creativity.

Young children do not have a monopoly on using natural resources and their imagination to conjure up role play. Older children, too, will delight in creating intricate 'fairy meals' using acorn cups for bowls; mixing hearty soups, pies and stews; creating rose petal perfume or lavender



wine; engineering a toxic sludge, a witches potion or cement for construction from mud, sand, twigs, water etc. With access to a few simple household objects like old saucepans, pots, whisks and spoons; some recycled containers; twigs, leaves, seedpods and other natural treasures found outdoors, children's creativity and imagination can have a free reign, provided that children are given the time, space and permission to do so.

Flexibility

Sensory-rich play resources are found all around us and most children do not need any help in signposting these nor instructions on what to do!

As the examples in this chapter illustrate, in the hands of a child, simple yet highly sensory resources can spark creativity and play in children of all ages. This chapter looks at ways of using freely or cheaply available resources to promote sensory play and learning. Sensory play is not an exact science to be slavishly followed. Instead, use these ideas as a springboard for creativity and having fun!

Play with objects

To best support children's play it is helpful to understand some special features of play with objects. As children get older (or more familiar with resources) they move through the process of exploring 'What is this object like?' and 'What can it do?' to 'What can it become?'. These first two phases have been linked to problem solving and the latter to symbolic play. Research has shown that in order to engage in symbolic play younger children need play materials resembling real things to help them represent their play ideas. However, for preschool children and older the reverse is true as open-ended play resources provide greater flexibility for imagination. As we shall see from the **Play snapshots** in this chapter, children's domestic and fantasy role play frequently develops out of their initial investigations (Play England, May 2011).

Play snapshot

In one play session a group of children (aged two to eight years) added biodegradable, loose fill 'peanuts' (similar to polystyrene packing pieces) to water, discovering that when wet it disintegrates to create very realistic effluent scum! Another child spotted the packaging and a small tin and proceeded to see how many pieces he could fit in the tin. He paused several times, explaining that it was full, before devising another strategy to make more space, be it putting the tin lid on to press the pieces down, realising that if he squeezed them with his fingers the pieces got smaller, or putting the tin on the floor so he could press his fingers down with all his weight. Once full, he announced that he wanted to count them to see how many he'd squeezed in and therefore set about emptying the tin. This required another strategy as many of the pieces were now stuck together, so a spoon was needed to prise them out when his finger could no longer reach them. Another child (aged eight) excitedly called out "Look!" as she held up a creation for the other children to see. The subject of excitement and pride was some packaging pieces that she had rolled in sand and couscous to create a look-a-like cheesy nibble! The other children looked on with awe and wonder before sparking a flurry of hands scooping up packaging pieces to use in their own play.

The senses

Picture the average child's toy cupboard and the overriding visual appeal of most toys will probably be apparent. This is often at the expense of stimulating our other senses which, as we discovered in chapter one, are so vital not just for our healthy development but also for our emotional wellbeing. When planning sensory-rich experiences for children, it is important to think about all the senses, rather than just the visual and auditory senses that toys tend to commonly appeal to. This does not mean that each and every experience should be multi-sensory. Indeed, we will discover in chapter four that for some children with sensitivities to sensory stimulation, this can actually be overwhelming. A key part of the adult's role is knowing which sensory stimulation to encourage and support and which to avoid. With careful planning and thought, and only minor changes to provision, the sensory focus of most