



## Developmental Training Programmes

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# *Play*



Child Assessment Service



DH

# **I. Brain development**

## **1. Experience build brain architecture**

In the brain, billions of brain cells called "neurons" send signals to connect to each other. This "connection" forms "circuits" and becomes the foundation of brain architecture. Circuits and connections proliferate at a rapid pace and are reinforced through repeated use. Simple circuits form first, providing a foundation for more complex circuits to build on later. Through this process, neurons form strong circuits and connections for emotions, motor skills, behavioral control, logic, language, and memory during the early critical period of development. Connections that are used more grow stronger and more permanent. Meanwhile, connections that are used less fade away through a normal process called pruning.

## **2. How to make useful "circuits and connections" powerful?**

The crux is to strengthen children's life experience. Babies have limited active activity, but they will make different facial expressions with cooing sound. Parents should respond immediately to the baby's expression and vocalization, and encourage him to make more expressions. In this kind of "one after another" game-style interaction, besides having fun on both sides, children's brains also are being stimulated, increasing the "connection" and "circuit" of neurons.

As children grow older, parents could arrange more complicated activities for them. The "circuits" in children's brains also become more efficient and more quickly connected to other areas of the brain, improving children's cognitive development. Therefore, to enhance the brain and cognitive development of children, parents should encourage children to play, from the exploration game in infancy to interactive games, role play game, and rules games in toddler, so to increase the "circuits and connections" in children's brains and to promote cognitive development.

## **II. Explore the myths and facts of Play**

### **1. Children's Rights**

According to Article 31 of the United Nations Convention on the Rights of the Child, children have the right to rest and leisure, engage in games and entertainment activities appropriate to the age of children, and participate freely in cultural life and artistic activities. The so-called "game" is any interesting and participatory physical activity. It is usually spontaneous, unorganized, and not subject to adult instructions. UNICEF recommends that young children have at least one hour of free play time every day, because play is very important for children's growth.

## **2. Gender and Toy selection and research report**

Research shows that babies about eight months old begin to have gender preference in selection of toys. Baby boys prefer to look at toy cars, while baby girls spend more time watching dolls; there are no obvious gender differences in color and shape preferences. Both sexes of children are interested in brightly colored and round shape toys.

In early childhood and toddlers, research also shows that boys prefer physical activities and play rough and noisy; girls are quieter and like to participate in social games, such as play with dolls or kitchen set. As they grow older, they are affected by their parents, other adults and commercial advertisements that toys are classified by gender, this "gender stereotype" which strengthens parents to only buy toys so-called "suitable for the gender of children", restricts their exploration of other toys, and limits the development of children in other aspects. Therefore, the responsibility of parents is to provide opportunities for children to make fun by playing different types of toys, to develop various skills through games and toys.

## **3. The role of toys in Play**

Toys are not absolutely needed during Play, and toys do not necessarily need to be purchased. During daily activities, if parents interact with their children in a creative way, they will find that any objects can be treated as toys. Actually, a simple interaction among parent and child is already a game.

#### **4. Comparison of "regular" game mode and "free play" game mode**

There are many advantages in regular games mode. For example, you can set the time and length of play, obtain clear goals and specific rules. Regular games mode can usually improve certain specific skills, such as doing puzzles to train children to pay attention to details and relationship among objects. Through poker or some chess games, children can learn more about strategic thinking, turn-taking and accepting winning and losing. But there are many disadvantages in regular games mode. Children may feel dull and as being multi-ruled bounded, which reduces their interest and limit their creativity. There are many benefits in the free-to-play game mode. It allows children to have more space to use knowledge and interest to develop their creativity and unlimited imagination. Parents may take balance in the two game modes for children according to their abilities, personality and preferences. The right proportion of it will give quality time of parent-child interaction in daily life and promote the development of children.

#### **5. Electronic screen games**

The American Academy of Pediatrics discourages young children under 18 months of age from watching TV or using electronic products for entertainment. These attract children's

attention with shining colors, fast transition pictures and high-decibel sounds, but they hinder children's thinking and have a negative impact on their eyes, brain, emotions and cognitive development. The society recommends that children over 18 months of age must be accompanied by their parents during video-calls. For children of 2 to 5 years old, daily accumulated screen time on high-quality programs should be restricted to within 1 hour. Parents must accompany and guide their children during screen activities in order to help them to learn new things.

The Hong Kong Department of Health also pointed out that since the development of young children is immature, long-term use of electronic screen products has a negative impact on skeletal development, vision and physical health. It will also hinder children's comprehensive development of language communication, social interaction, cognition and physical fitness.

### **III. Tips for playing games**

Disputes occur very frequently when children are playing together. In many cases, they lose their temper because of "unyielding", which will make the joyful party unhappy. In daily life, children start to face condition which is not the same as what they imagined through winning and losing games. When adversity arises, other children may not listen to his own decision, or they may not be

interested in his own gameplay; and they may even fight for the same toy. At this time, they had to start to "face" winning and losing and had to learn to "accept" winning or losing, and also learn to collaborate in problem-solving as a team.

**The trick is:**

When you lose: Learn to remind yourself that this is not a big deal. You need to control emotions, there are other options.

When you win: Learn humility, thank the other party for playing with you. And learn to cherish the process of interacting with people.

Through interactive games, children learn many important skills. It includes verbal communication, pay attention to other people's preferences and motivations, empathy; learn to set up own materials in play, set goals, follow the rules of the game, learn to wait, control emotions, solve problems through collaborations, etc. It is even more important that the children feel fun, build positive relationships with others through the game.

Harvard University research shows that children in their early critical developmental stages, play will help children's brain cell neuron to build circuits and connection which enhancing children's emotion, physical development, behavior control, logical thinking, language development and memory.

Through play, children have the opportunity to use these abilities

starting from young children by repeated practice and consolidation. It will make "circuits" more efficient to build a foundation for adaptability, and equip children to meet the challenges of future growth.



## Introduction to paper games:

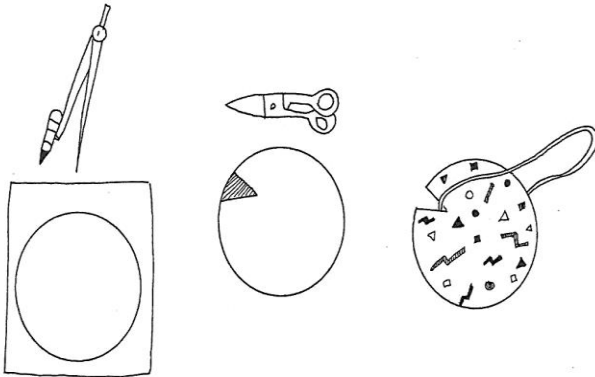
### Small flying saucer

Material:

1 piece of cardboard, 1 rubber band

Practical methods:

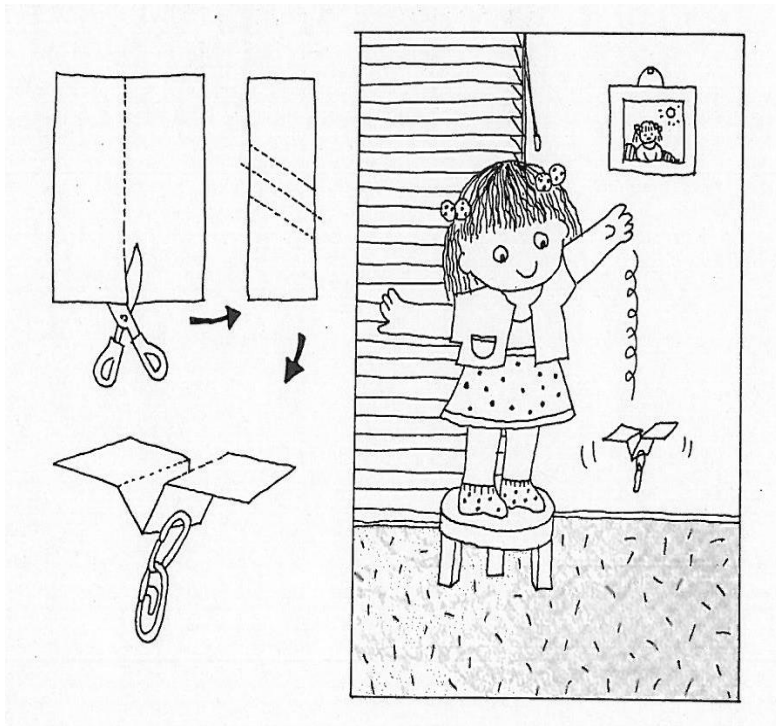
1. Draw a circle on the cardboard and cut it with scissors
2. As shown in the figure, cut inward on the round paper towards the center of the circle by about 1 cm
3. Cut the gap diagonally downward
4. Children can draw or paste cute patterns or decorations on round paper
5. Put a rubber band around the gap, hold the piece of paper directly under one hand, hold the rubber band with the other hand, and then let go, the "small flying saucer" will fly forward



**Spinning plane** Material: One piece of paper, 2 clips

Practical methods:

1. The paper is cut into a strip from the center.
2. Fold it diagonally once in the center of the long paper, and then fold it diagonally in the left and right direction. Hold a string of the clips under the center and throw it down from the height. It becomes a spinning plane.

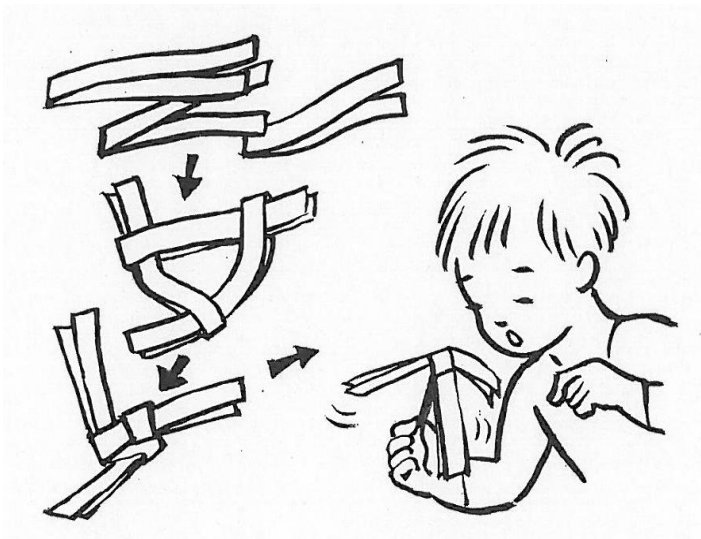


## Windmill

Material: 1 piece of thick paper

Practical methods:

1. Cut the paper into 3 strips, 2 cm wide and 20 cm long
2. Fold the paper strips in half and then interlace them together (as shown)
3. Then tighten the three directions to make the junction into a triangular cone shape (as shown)
4. Hold the cone with a pencil or finger, blow hard, and the windmill will turn



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