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OUTLINE PLAN OF ACTIVITIES
FOR THE NURSERY SECTION OF THE EUROPEAN SCHOOLS
AS APPROVED BY THE BOARD OF INSPECTORS

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I. GENERAL INTRODUCTION TO A PLAN OF ACTIVITIES FOR THE NURSERY SECTION OF THE
EUROPEAN SCHOOLS

Nursery school is one of the most important links in the long educational chain leading the child to adulthood. It encourages his physical, intellectual, moral and social development. The play and other activities in which the child takes part enable him to acquire knowledge of a whole host of things at a level of conceptualization which reflects the daily advance in his ability to manipulate his native language. Finally, nursery school prepares the child for the otherwise difficult business of starting primary school.

This task is as stimulating as it is difficult and its successful completion depends upon the school taking the child with his interests and his needs as its starting point. His interests raise questions which he wants answered. His needs must be satisfied.

Interest-centred education involves respecting the child's spontaneity. It is based on the source of all his interests -- his ego, his life and that of his friends, his family set-up and his school, his immediate surroundings, plant and animal life and nature. He wants to explore the world around him, and this urge for discovery must become the driving force in his education.

Exploitation of the child's interests should not simply be the pretext for a few superficial observations. On the contrary, within the framework of the child's possibilities the approach adopted should act at the deepest level possible, stimulating all his physical and mental skills, his sensitivity, his creative spontaneity and his need to express himself in all possible ways.

Although observation and experiment are, in theory, the basis of a whole series of nursery school activities, one should not lose sight of the fact that these activities must also stimulate the child to reflect, compare, reason, make judgements and perhaps even abstractions, lead him to a higher level of thought and, this is perhaps the most important point, provide the basis for strengthening his grasp of his mother tongue.

The educator will group various activities involving expression around observation exercises and give the children the opportunity to express themselves through creative activities, either free and individual or organized and in groups, according to the situation.

It should be emphasized that at this early age all development and learning take place through play. The classroom atmosphere must therefore be a cheerful one where discovery is a pleasure and work done with a smile because it is a basic need which can be accomplished through play which, most of the time, must be a pretext for learning and understanding, self-expression and creation.

The many skills learned at nursery school pave the way for skills to be learned at primary school through, among other things, an improvement in the grasp of the mother tongue, the acquisition of elementary concepts and a gradual introduction, at the same elementary level, to symbols and to abstract concepts.

Modern psychology now stresses the importance of learning very early on and the possibility of the under sixes being introduced to a preparation for skills hitherto only acquired by older children -- reading, writing and mathematical activities. Preparatory exercises will be undertaken in the last nursery school class and will be carefully selected and calculated as to quantity but will not include learning the skills themselves.

Through these and other exercises geared to encouraging the child to develop his mind, the nursery school will be an effective means of preparing the child to carry out and adapt to the work of the primary school.

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II. THEORETICAL BASIS AND FEATURES OF THE PLAN OF ACTIVITIES

At the nursery school, work must be planned as a continuous progression and the child must be considered as an individual.

The plan of activities must set out the various categories of activity and give examples.

The work of the teacher must not be hampered by instructions which are too detailed or too inflexible.

The content of the plan of activities must be suitable for young children. It should exploit their learning capacity, provide stimulation and motivation geared to their age and their nature, and aim to have a positive influence, from this young age, on the child's whole development.

Work must be carried out in the light of the results of scientific research. Child psychology has entered a new phase and research is now based on the idea that the child's intellectual development is largely determined by learning processes at an early age (Vandenplas-Holper, Louvain).

From the outset the child must be stimulated by being confronted with various learning situations and by having specific behaviour patterns triggered or altered.

The new method should involve organizing the education process to create maximum physical, social, moral and intellectual development ; this will enrich the child's relationship with other children and his social life in general and, at the same time, create an atmosphere in which the child can work on his own and as a member of a group.

Parents should be informed as to the nursery school's aims and the work methods used. Spontaneous collaboration will not fail to be forthcoming from the well-informed parent who displays an interest in the development and future of his child.

The outline plan of activities aims, apart from some methodological guidelines, to give general and specific information on the subject. The teacher can use this as a basis for organizing her work so that the following aims - which sum up the goals of the nursery school at the present time - are achieved to the fullest extent :

- providing opportunities for the child to develop and thus fulfil himself in as many spheres as possible ;
- respecting the child's personality and shaping it without losing sight of the need of the individual to be socially well-adapted ;
- making the transition to primary school and progress once there easier by a broad-based but indirect preparation for its main activities.

Thus, the work of the nursery school will sometimes be compensatory in nature. The fact that children are at different stages of development on entry to nursery school is largely due to the background of their early years. Different backgrounds stimulate emotional, social and intellectual development to different extents. The nursery school must, therefore, attempt to fill any gaps and put everyone on an equal footing.

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III. SOME ADVICE ON TEACHING METHODS

The methodological guidelines will only achieve their aims if used flexibly.

1. Conscientious preparation

The precise aim of each activity must be defined and the proper means used to attain it. Some attempt should be made to graduate the means used. The teacher must prepare the day's work thoroughly if this is to be achieved. It is useful to draw up a work plan for a given period (week, month or term), charting both continuity and increasing difficulty.

It goes without saying that the child must be interested if the work is to be fruitful. Spontaneous interest on the child's part may be a starting point but it should be borne in mind that the real art of the teacher is being able to stimulate and guide the interest which is vital to productive work.

Practical work could be based on curricula, that is to say pre-defined learning systems which specify the following elements : the aims, the stage of development by which the child will have acquired a given concept or aptitude, the teaching materials to be used and the means of establishing that the aims have been achieved.

Such methods, however, must not be devoid of flexibility. It must be possible to take into account a certain number of factors which are specific to each class of children or dictated by particular circumstances such as level of development, composition of the group, passing interests, the need to go more deeply into some aspects, unforeseen events, time available etc.

2. The child's activity

An atmosphere of activity must pervade the nursery school. It is the teacher's art which creates this atmosphere by providing interesting learning situations. In group activities all the children should work together in harmony.

The child learns through action. The teacher must stimulate and guide the child's action and help him and give correction where necessary. The child must be corrected ; a case in point is correcting him when he does not take care of his school things properly. Spontaneity and freedom should never become excuses for carelessness and indifference and an effort must be made to put the child right.

The principle which asserts that the child must be active is of great generality, embracing manual activity, bodily activity and mental and intellectual activity. It is of particular importance for the development of the mother tongue. The children must be encouraged to talk spontaneously, and active language skills should be encouraged rather than a more or less passive understanding of the language used by the teacher. Mistakes must be corrected, but indirectly so that the child does not lose his spontaneity.

3. The freedom of the child

The general atmosphere of the class must be one of properly constructed freedom if the spontaneity of the child is to be respected. Certain limits must be imposed upon absolute freedom and these are dictated by particular activities which would not otherwise be effective, and by the social character of the class. Although, for example, the children may move about freely in the course of some activities, there must also be times when they have to stay in a given situation or position.

4. Centres of interest

A theme for activity is only meaningful if it can command the child's interest. It would therefore be a good idea to group a certain number of activities round a centre of interest taken from the field - which should widen gradually -- of the child's experience e.g. his home, his street, his district, his town, his garden, the park and the forest, animals and plants.

5. Expression -- Play

Free or guided oral expression is of great importance for the development of the mother tongue. Each linguistic group must have one or more nursery school classes of its own in each of the schools so that this may take place in satisfactory conditions.

Completely free play is an integral part of the activities. It has intrinsic value. In addition to free play there is organized play which is specially guided with a more or less specific educational aim in view. It should be remembered that every nursery school activity is more or less in the form of a game and that, even at this age, the child needs to be able to try his strength in a situation that is geared to his possibilities.

6. Individual work and group work -- differentiation among the children

The individual differences of the children should be borne in mind when the work is planned. These differences are concerned with the child's mastery of the mother tongue, the knowledge he has acquired, his ability to concentrate, his physical capabilities and his interests. The vital differentiation can be achieved through working alone and as a member of a group.

(a) Individual work

Each child does his own work (painting, modelling, building etc). All the children work individually on the same subject or on different subjects. The teacher follows each child and sets, evaluates, directs and corrects work on an individual basis. Differentiation is clearer-cut in this type of work. As much individual help as possible must be given to prevent slower children getting behind and to ensure that children who arrive during the year can integrate properly.

(b) Group work

The class is divided into work groups which may be chosen to fit in with the children's preferences but also according to criteria which the teacher may deem necessary (e.g. mixed ability groups so that the weaker children are stimulated).

The various groups could do activities at different levels or work on different aspects of the same subject. The more advanced children will not be held back and the weaker ones will be encouraged, and the differences will be gradually ironed out.

Group work is a first step on the road to differentiation. Within one class the differences between the work of the various groups can be related to the amount of work set, the degree of difficulty and the time required to carry it out. (Other remarks concerning teaching method are included in the following chapters on the plan of activities proper).

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IV. OUTLINE PLAN OF ACTIVITIES

Development of the global personality

As soon as any attempt is made to divide nursery school activities into a certain number of groups it immediately becomes clear that there is always some overlap. This is because, ultimately, every activity contributes to the development of the global personality, which is a complex phenomenon.

The act of educating involves a certain amount of compartmentalization to deal with the various aspects of the personality. The components of the personality, which are separated for practical purposes, are in fact closely linked and interdependent.

The complete set of nursery school activities can be divided, according to the main components of the personality, into groups, each of which concentrates on the development of a special aspect of that personality.

- A. Education in the psycho-motor skills :
 - 1. Physical education and hygiene
 - 2. Play
 - 3. Education of the senses
- B. Education in self-expression :
 - 1. Linguistic education
 - 2. Development of creative and artistic abilities
- C. Moral and social education :
- D. Development of logical thought :
 - 1. General activities
 - 2. Mathematical activities

The activities suggested by this outline plan under the above leadings are all polyvalent activities concerning the child's personality as a whole aiming at education of body, mind and emotions.

General education in the motor skills and artistic and musical education are integrated into it.

A. EDUCATION IN THE PSYCHO-MOTOR SKILLS

1. Physical education and hygiene

This will make the child aware of his body and bring any deficiencies to light. Exercises will ensure that the body develops harmoniously and the child keeps fit.

Physical education exercises should normally be games which are played in a happy, relaxed atmosphere. Most play, whether free or guided, makes a direct or indirect contribution to physical education.

2. Play

The development of the global personality is enormously influenced by play, be it free or guided.

The nursery school should contain a number of play areas where the children can play together. A child of about 5 is able to invent and respect rules.

Social relationships will be established through the discovery of other children although the gradual acceptance of this idea will not be an easy one.

Play provides many occasions for activities connected with every aspect of the personality :

- by handling toys and other objects the child will be trained in coordinating his movements and keeping his balance, and in the precision and speed with which he acts ;
- through the many opportunities to discover and experiment, to acquire skills and knowledge, to increase verbal skills and to enrich his emotional experience.

Madame MONTESSORI states that play brings the child help towards living. This help could be summed up as follows :

- as developing cognitive and motor skills through experience ;
- as producing happiness ;
- as providing the possibility of satisfying the child's own needs ;
- as making it possible to play many different parts ;
- as making it possible to live in a quiet, serene atmosphere ;
- as making it possible to learn the respect of rules.

The child plays at being and doing, and the transition from real to unreal is an easy one. The school must therefore encourage symbolic play. The teacher must provide toys and other materials for the children who will use them according to their own interests, needs and level of development.

3. Education of the senses

(a) Exercises involving sight and hearing

These exercises should gradually lead the child to break down and differentiate what he sees and hears.

The nursery school pupil finds this difficult since perception is very much a global thing at this age. The exercises should therefore be turned into educational games.

HEARING

Hearing :

- noise from the road and the playground (cars, people, birds, planes etc.) through the open window ;
- a child crying outside ;
- noises in the classroom or the corridor, notes made by musical instruments.

Listening :

- a specific noise is listened for ;
- names of the noises and sounds are given ;
- words and phrases are repeated after the teacher who says them softly ;
- games are organized where children must listen for noises blindfold ;
- work is suddenly interrupted to listen to a noise.

Identifying noises and sounds

- the children have blindfolds or they shut their eyes and listen carefully to noises in the classroom ;
- the children trace the source of the noise to, for example, a chair being moved, a book being dropped, a child talking, running water, a drum being beaten etc. ;
- one of the children makes various sounds and noises for the others to identify.

Examples of noises and sounds : soft footsteps, heavy footsteps, paper being crumpled or torn, the noise of a hard object being scraped against a sheet of glass or metal, mouse-like scratching, a door being closed, birdcalls, musical boxes, whistles of various kinds, ORFF instruments, household equipment, crockery being put away, a typewriter etc.

Analysing the noises and sounds :

- loud and soft noises ;
- the children produce notes of varying loudness on musical instruments, and then with any inanimate object ;
- a chair is moved gently or roughly ;
- walking lightly or heavily ;
- loud and soft notes on the piano ;
- imitate loud and soft notes ;
- play a march on the piano getting louder and louder, then softer and softer to imitate a procession coming closer and then moving off ;
- distinguish the various components of a noise, e.g. the noise of someone walking along, the noise of a car or plane going past ;
- turn up the volume of the radio, TV or tape-recorder ;
- identify the sounds of various musical instruments ;
- the teacher beats time to her footsteps with a tambourine as she walks across the playground. The children should hear the noise getting louder as she comes nearer ;
- the children look for a hidden object. The teacher (or one of the children) beats the tambourine harder when they get warm and softer when they get cold ;
- tell a low-pitched sound from a high one ;
- use arm movements to show how high a note is.

Locating noises and sounds

- get the children to say whether a sound or a noise is coming from close by or far away ;
- during a walk the children say where the song of a bird is coming from ;
- a child walks down the corridor : footsteps coming and going ;

- trace a sound outside the classroom ;
- sounds and noises that come from the left, the right, above, below, behind, in front (ideas acquired in mathematics) ;
- a child is blindfolded and must walk towards a noise : a dog barking, a bell ringing, a triangle being played etc. ;
- the teacher moves the source of the noise and the child, with eyes shut, must indicate in which direction ;
- the hunter and the fox : someone is the hunter, someone else the fox and the rest of the children are the forest. The fox barks and the hunter, who is wearing a blindfold, must find him.

SIGHT

Understanding, perceiving, noticing, discovering, comparing, locating, analysing and interpreting globally :

- distinguishing details : colours and shapes ;
- asking questions about pictures ;
- seeing the various elements of a set ;
- separating the elements and putting them back in the set ;
- looking for similarities and differences in various pictures ;
- recognizing the pieces of a puzzle ;
- knowing, recognizing and describing the shape of familiar objects ;
- using bricks of various kinds : shape, colour, thickness ;
- interpreting shadows and outlines (trees, horses or mice) ;
- looking at the size of various objects and using the correct word to describe them : big, small, long, middle-sized, short, low, etc. ;
- comparing objects to given yardsticks : a dog, long legs, short legs, a mouse etc. ;
- locating various objects : on the right or left, near or far, inside, outside, on, under, in front of, behind, around etc. ;
- understanding relationships : cow-milk-butter ; corn-flour-baker-bread ; relations-sister, brother, father, mother, uncle etc. ;
What do we make with ? Who does?
- grouping identical objects and pictures of objects ;

- finding the missing detail in a picture ;
- imitating stances and movements characteristic of people in a picture ;
- regrouping objects of the same colour and shape ;
- noticing symmetrical shapes ;
- matching the two halves of a diagram or picture ;
- comparing diagrams and pictures with tiles, rods, puzzles etc ;
- having a global understanding of written words ; the child's name, the names of familiar objects ;
- giving children of 5 plus picture books to look at. They influence sensitivity and intelligence. A picture book containing passages of text will make the child want to read by making him feel that reading is a necessity.

(b) Exercises to encourage manual dexterity and visual attention

- using a variety of construction games, fitting things one into the next, fitting them together or putting them in rows; building with files or rods ;
- exercising the hands to make them supple ; placing the hands on the table and only moving the fingers ; holding an object in each hand and twisting the wrist ; playing with plasticine and clay ; playing a musical instrument ;
- doing exercises to coordinate the eye and the hand ;
- doing precision exercises : cutting out, sticking, tracing lines with a point, filling in, colouring, weaving etc. ;
- using pens and pencils etc. : practising using a pencil, brush, coloured pencils etc. :
- painting and drawing : finger paints, brushes, wax crayons, felt-tipped pens etc. ;
- recognizing colours and shades : pale and dark colours ; colour mixing.

Remark :

It is up to the teacher to strike the happy medium between total respect of the child's spontaneity and the need to guide him so as to make a certain amount of progress. Guiding and correcting must be done discreetly and kindly. This is another field where individual and group work is more practicable.

(c) Exercises in the graphic skills

Havranek has said that these exercises should be in answer to the need for a preliminary training of the child's hand to prepare the child for writing and drawing of all kinds. As often as possible drawing should be preceded by a game. The child can play at being the swallow looping the loop a hundred times before going back to where he started. Then the arm will make the same movements with big gestures in the air and then the finger will trace them on the paper. Drawing the loops with a pencil will be the final step in the gradual process of adapting the movements to a restricted space.

Every exercise should involve some sort of progression, from the broadest down to the most delicate movement, from a large working surface to a very small one.

The use of writing and drawing instruments should also involve a progression : multicoloured stones, fingers, coloured chalks, thick brushes, fine brushes, felt-tipped pens etc.

G. Calmy has said that working in pencil on a small piece of paper helps the child to control his hand and working on a large surface encourages him to use bold gestures. It is quite legitimate to start with boldness and work towards an attempt at mastery and not the other way round since the child finds subtle gestures impossible or extremely difficult at first.

Practical exercises

Drawing lines and figures :

- shapes and movements but no set plan ;
- upwards and downwards arcs ;
- zig-zags ;
- straight lines away from and towards a given point ;
- fence posts, rain drops, smoke, the arches of a bridge, hooks ;
- falling snow, pebbles on the road ;
- a line joining two points ;
- a ladder ;
- the fringe on a towel (lines towards a restricted surface) ;
- grass in the field (lines towards a non-restricted surface) ;
- completing various diagrams ;
- parallel lines ;
- broken lines ;
- circles of increasing and decreasing size (string of pearls) ;
- joined up lines ;
- loops, arabesques, spirals (waves, snakes, snails) ;
- developing a sense of observation by precise imitation, coordination by grouping elements which form a whole and staying power by gradually lengthening the sessions ;
- using symbols : dots, crosses etc. ;
- copying out names on labels (left to right).

TOUCH and the sense of hot and cold

TASTE

SMELL

Some examples :

- feeling objects of all kinds ;
- telling smooth from rough ;
- recognizing an object by feeling it ;
- feeling the difference between a hard and a soft object ;
- feeling the weight of objects : lighter, heavier ;

- comparing the temperatures of different objects by touching them ;
colder, hotter, lukewarm etc. ;
- recognizing the main tastes : sweet, sour, bitter etc. ;
- describing the tastes, separating them into pleasant and unpleasant ;
- actively perceiving the smell of various objects : flowers, scents, fruits, chemicals etc. ;
- identifying certain smells and describing them ;
- comparing smells.

Remark :

Attention and concentration will be constantly used by properly directed education in the motor skills which will gradually bring the child to be aware of his body and help him to grasp spatial relations. It goes without saying that such exercises will be worked into whatever activities are being carried out at the time.

Memory will be trained by learning passages by heart and carrying out little duties.

Both free and directed play will encourage attention, concentration, and staying power and gradually lead the child away from his basically play-oriented attitude towards one which will ensure a smooth transition to primary school and progress once there.

B. EDUCATION IN SELF EXPRESSION

1. Language

(a) The speech organs

Reproducing noises and sounds :

- imitating cries ;
- reproducing words and syllables ;
- completing rhymes ;
- giving words with similar sounds ;

- reading from pictures ;
- reciting verse.

Articulating :

- doing impromptu and systematic word-pronouncing exercises ;
- repeating nursery rhymes ;
- practicing the spoken syllable ;
- saying words backwards ;
- accentuating a given syllable ;
- finding the same sound in different words.

Remark :

It is extremely important for correction of the pronunciation exercises to be skilfully done.

(b) Language

Understanding : words, phrases, narrative :

- using real objects, simple drawings, file cards and books ;
- stimulating the child's imagination ;
- interpreting separate pictures in a series ;
- building up stories from a series of pictures ;
- putting a series of pictures into chronological order ;
- grasping the main idea, seeing and explaining some important details ;
- looking for intentions and feelings ;
- talking about objects, animals, flowers, books, big pictures etc. to widen vocabulary ;
- getting the children to mime and imitate characters in a story or nursery tale ;
- having free conversation around subjects of personal interest to the children ;
- getting the child to describe what he did and saw on holiday, over the weekend, at friends', out for a walk etc.;
- describing the characters and their relative importance in the story.

Freeing the child from the fear of speaking :

- encouraging the child to enjoy speaking and communicating through special occasions : birthdays, red letter days, a task undertaken collectively etc. ;
- retelling interesting little stories ;
- putting on frequent puppet shows to encourage the children to express themselves freely and spontaneously ;
- talking in a relaxed way with various children, particularly the shy ones ;
- associating language to music, art and play ;
- chanting words in time to music, talking about a pretty picture, discussing the rules of a game ;
- recording children who talk well ;
- organizing games : questions and answers by throwing a ball round a ring of seated children ; telephone games ; play acting ; acting out nursery tales and stories ; games where everyone plays a specific part etc.

Remark :

Avoid discouraging the child by correcting him clumsily or too harshly ; correction should stimulate rather than discourage. The teacher's language should be a model for the children.

2. Development of creative and artistic skills

Creative activities are a type of game through which the child can express himself. The following activities are included :

(a) Manual work

Subjects are drawn from the basic work being done at the time ; this means that they are motivated and answer the children's needs.

Working with paper, weaving and basketwork etc. (see also A 3 (b))

(b) Modelling

The same remark as for manual work is true as regards choice of subjects. Plasticine, clay, plaster, makeshift materials, sand etc. can all be used (see also A 3 (b)).

(c) Drawing and painting

The child sees drawing and painting as a language. The child can express his visions, dreams, fears and desires in his own way.

Materials and tools must be varied. Proper equipment makes for easier work (see also A 3 (b)).

(d) Music and singing

The essence of these activities is to make a special contribution to creating a happy atmosphere at the nursery school. They should not, therefore, be subjected to a fixed timetable :

- doing exercises in rhythmic education : the child must move his body or his limbs in response to certain noises and sounds ;
- doing movements and rhythm patterns ;
- beating time to nursery rhymes ;
- getting the children to make up rhythms : with their fingers on the table, with their feet, on their knees ;
- moving the body in time to music ;
- leaping and bounding in various ways ;
- using percussion instruments : cymbals, keyboard instruments, kettle-drums, sleighbells, ORFF instruments ;

- accompanying simple melodies entailing attention and precision ;
- learning the recorder ;
- making the children listen to suitable records ;
- doing rhythmic movements : walking, running, jumping, skipping, clapping etc.;

(e) Exercises in the graphic skills
(see A 3 (c)).

C. MORAL AND SOCIAL EDUCATION

This is carried out in a continuous way through practical action. Living together and organizing work will mean that the children will have to accept certain rules which they will learn to agree to freely. It will become a habit to them to follow certain rules, which are essential for inter-personal relations.

From the theoretical point of view, the foundation of moral behaviour and action will be laid, during language activities, by examples taken from nursery tales and stories.

D. THE DEVELOPMENT OF LOGICAL THOUGHT

1. General activities

A large number of activities described under headings A, B and C yield opportunities to make the first step towards the development of logical thought.

The teacher will make a judicious selection, particularly in the area of language activities.

2. Mathematical activities

Certain mathematical activities are also conducive, to a large extent, to the development of logical thought.

These activities are comprised in the set of exercises presented under this heading with a view to preparing children for mathematical activities.

(a) Exercises to stimulate the acquisition of certain basic notions

Notions of topology :

In front of, behind, up, down, below, above, on, under, near, far from, a short distance, a great distance, next to, between, to the right, to the left, horizontal, vertical etc.

These notions will be experienced and expressed during physical education and rhythmic exercises and during organized play. By actually handling the objects around him the child realizes that they have properties which can be compared among themselves.

Notions of size :

- large-small, thin-thick, long-short, wide-narrow, high-low etc. ;
- the relative nature of these notions ;
- comparison : bigger, smaller, less etc.

Notions of shape :

- round, rectangular, square, triangular ;
- determining the shape of an object or a figure ;
- making shapes ; drawing, cutting out, folding, modelling etc.;

- varied exercises with different shaped bricks ;
- familiarizing the child with solid bodies : cube, sphere etc.;
- getting the child to grasp intuitively the difference between a surface and a solid body.

(b) Activities with sets

Remark :

Through the handling of sets of concrete objects the children will make experiments which will constitute the first step along the path of abstract thought, which will become increasingly abstract throughout their future school careers. The number of elements in the set selected is of no importance. Certain important notions can already be grasped at the nursery school stage.

Large and small sets :

- a lot of elements, few elements, only one element, no elements ;
- determining natural sets ;
- forming sets in class : various objects, children etc.;

Invariability of the number of elements :

- bringing the elements of a set closer together and separating them again.

The children notice that moving the elements about does not affect the number ;

- in a set of children, the children move about - the number is not affected.

Question : Are there more elements in a set when it is more spread out ?

- putting a number of beads into a small receptacle, then into a large one : they fill one of the receptacles more than the other but the number of beads is unchanged ;

- arranging the same number of rods in different ways.

Sub-sets according to a specific property :

- grouping elements according to shape, colour, thickness, length, age, sex etc.;
- comparing two structured sets; giving a relative judgement: larger, smaller, the largest etc. Do not have the children count the elements ;
- having the children make comparisons by judging length, height, distances ; give relative values.

(c) The notion of number

Research by Jean Piaget has shown that the child can only acquire the notion of number at a relatively late stage. Since number is not a property of an object but of a set, the manipulation of sets will gradually lead the child to acquire the true notion of number.

Counting objects :

The child unthinkingly imitates the numerals he hears used by the people around him. The natural order of these numerals is learned quite quickly in a mechanical way. At the age of five, the child acquires without much difficulty the technique of mechanical counting. He will point to the objects while reciting the numerals, without, in most cases, having a clear idea of the notion of number.

It is not recommended systematically to practice this kind of counting at the nursery school, because the only result would be to make the acquisition of the real notion of number more complicated.

Grasping numbers globally :

- having the children compare two or more equipotent structured sets, whose elements are arranged in different ways. The children must recognize that the sets are equipotent ;
- comparing in a global way natural sets from the child's surroundings ;
- comparing in a global way diagrams containing symbols (crosses, dots etc.).

Arithmetic :

at the age of five children will already carry out in an intuitive and spontaneous way, simple operations dealing principally with addition and subtraction. As they draw nearer to the start of primary school, children feel the need to use numbers. Their curiosity must, at the time, be satisfied in a simple way, without, however, being made a pretext for counting exercises or explicit operations. The teacher should be content to answer questions about figures correctly but to do no more than that : for example the figure (number) on the calendar. Laying a solid enough foundation for the later acquisition of the true notion of number and its correct use is more useful and effective than pseudo-knowledge based on reflexes and mechanical drills.

The exercises in this group should lead the child gradually to become receptive to mathematical thought. The child should be able to acquire a clear and correct notion of the first numbers. But it is necessary, from the very beginning, to avoid a preponderance of mechanical exercises.

The natural environment, specially designed materials and equipment for games will all provide the opportunities required for young children to develop their mathematical skills. The choice of materials and activities should cover as wide a range as possible.

Frequently, spontaneous reaction to materials shows the teacher the developmental stage the child has reached.

The child should be given the opportunity to sort and classify everyday objects. The teacher will be able to organize the child's surroundings in such a way that these activities will occur reasonably spontaneously.

Handling objects, in addition to its general intrinsic value, is also useful for improving the child's vocabulary. The young child's curiosity naturally prompts him to handle things and this is the foundation of his broadening experience and knowledge. It will influence his mental, emotional and social development.

As regards the nature of the objects on which the child's activity is based, it is recommended that individual differences in level of development, interests and principal needs be borne in mind. These differences often relate to the child's sex.

Various categories of exercises, each with a specific objective in view, contribute to preparing the child for the mathematical activities of the primary school and for logical thought about his activities.

It goes without saying that these activities also contribute to the development of the global personality.

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V. TRANSITION FROM NURSERY TO PRIMARY SCHOOL

Although the nursery school should not specifically be an institution whose main task is to prepare children directly for the work to be done in the primary school, such a preparation cannot fail to be carried out implicitly. The education and training of an individual are the result of a continuous process where each phase necessarily prepares him for the next. The activities of the nursery school contain elements which are also part of the activities of the primary school.

Reading, writing and mathematical activities are complex activities made up of a large number of elements which fit into different physiological and psychological wholes. These are the same elements as those that make up most of the nursery school activities, with the result that these activities, in addition to their more general rôle, also prepare the child for learning, in the proper sense of the term, to read, to write and to do mathematics.

A. PREPARING TO LEARN TO READ

In order gradually to arouse the desire to read, it is necessary to bring the child into contact with books. To this end, it is absolutely essential to have books in the classroom. The teacher will use them to read or tell stories. The children will use them to look at the stories again or to re-tell them. Any books made available to children must be richly and intelligently illustrated.

In practice, reading preparation exercises are inseparable from the perceptual-motor exercises aimed at writing preparation and similar preparatory work.

Preparing to learn to read should lead the child to acquire a certain number of specific abilities, such as :

- an adequate mastery of language ;
- a certain level of visual and acoustic discrimination ;
- the first stages of an understanding of symbols ;
- the development of a proper understanding of spatial relations and the ability to concentrate.

In this area, the task of the nursery school is as follows : to lead the child to perform activities which encourage the education of the senses, which develop the intellectual skills, in particular language, and which increase the ability to concentrate and the understanding of spatial relations.

The exercises must be selected and administered according to certain methodological principles :

- subjects should be chosen which are appropriate to the mentality and experience of the children ; exercises should be incorporated into games and should reflect themes from real life and centres of interest ;
- progression from easy to difficult, from concrete to abstract, from real objects through pictures to symbols, should be adopted ;
- the children should be encouraged to participate actively. It has been stated that these concepts are not taught, they appear naturally through the activities of life. They must develop functionally, that is to say, in response to a need, which, where necessary, is created by the teacher ;
- exercises should be regularly repeated in order to consolidate the skills acquired. The various categories of exercises will be able to be practiced repeatedly throughout the year in different contexts and on different themes. Short, regular repetitions are the most effective.

B. PREPARING TO LEARN TO WRITE

It is not a question of teaching the child letters and numbers so that he can learn to write. He does not learn to write in the real sense of the term. It is, rather, a question of preparing the child for the art of writing.

Through carefully selected exercises in manual dexterity and a series of exercises in graphic skills, the child should spontaneously use and grow accustomed to the different shapes he will come across in writing. At this stage of the preparatory work, considerable importance should be attached to the child's position at the table, to the child's attitude and the way he is holding the pen, brush etc. he is working with.

To achieve success, these objectives must be aimed at :

1. training the child in the correct use of the hand, the wrist, the forearm ;
2. providing visual training and encouraging visual concentration ;
3. developing knowledge and use of different parts of the body and the organization of space.

The methods used are many and varied :

- play and free movements ;
- educational games to develop skill and dexterity ;
- modelling and cutting out ;
- painting, drawing and colouring ;
- exercises to develop the senses, particularly sight and touch ;
- exercises in the graphic skills ;
- rhythm exercises and education in the psycho-motor skills.

C. PREPARATION FOR MATHEMATICAL ACTIVITIES

(see IV D 2).

D. CONCLUSION

By preparing children indirectly for the activities of the primary school, nursery school teachers will help them to make a smooth transition from nursery to primary school.

They will also, as far as this is possible, contribute to a certain equalization of opportunity at the outset.

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VI. FINAL REMARKS OF A PRACTICAL NATURE

The exercises listed under the various headings of the outline curriculum above are intended, above all, to point the way and provide examples.

The list is neither exhaustive nor restrictive.

The guidelines and remarks on teaching methods which accompany the curriculum are intended to do no more than remind teachers of certain facts, in order to induce them to tackle their task, each according to her own personality, in full awareness of the basic unvarying principles and of the latest findings of scientific research in the field of education and teaching.

No theoretical knowledge is of any value if the teacher's personality does not enable her to put it to good use in order to give life to her work, make it interesting and fruitful.

A written plan of activities will always be almost exclusively concerned with theory. It will never be able to free the teacher from the obligation to use all (his or) her ability to put the advice and examples contained in it into practice in the form of a sound global teaching programme.

Any real teaching programme, at the nursery school and elsewhere, is, in fact, global in scope. The teacher must not forget this fact when faced with a syllabus which, through compartmentalization, does not favour a unified approach.

External compartmentalization, which is inevitable for reasons of composition, should not disturb the natural unity of activities whose aim is to develop a complete personality.

In the light of recent scientific discoveries, the rôle of the nursery school has taken on a new value. This up-grading brings with it increased responsibility for the person in charge of such a school. The task will be more difficult, but will also bring more satisfaction.

The activities described in the plan of activities cover two years' work at nursery school, for children of from 4 to 6 years of age.

Naturally, the exercises selected for the youngest children, although having the same objective in mind, will be easier and more suitable for the mental and physical development of a child of 4. They will be more varied, shorter and will be more purely play-oriented than those selected for children of 5.

Those activities which are clearly aimed at preparing children for the work of the primary school will not be introduced until the second year, and some of them not until the second half of the second year ; this, for example, is the case with activities purely related to the graphic skills and certain practical exercises designed to prepare the child for mathematics.

It will be left to the teacher to exercise her skills in choosing and organizing the material.

The nursery school teacher, who is in a position to constantly observe children as they perform the most varied types of activities, will, and should, be able to notice certain signs and symptoms of deficiencies which could be mitigated or even eliminated by medical treatment or remedial training, if detected early enough. It is a question, above all, of psychomotor defects, defects of the sensory organs and speech defects. In this area, the rôle of the teacher is to convey her suspicions and observations to specialists attached to the school : the doctor, the psychologist and the speech-therapist.

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