



Emotional Empathic Proximal Learning Educational Environment

PEARL

2018-1-IT02-KA201-048515

Toolkit of Educational activities

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Introduction

The educational model for early childhood education that will be experimented and scientifically validated by the European project Erasmus + KA 201 PEARL “Emotional Empathic Proximal Learning Educational Environment” derives by the idea of foster children's growth through an empathetic and emotional proximal learning environment based on group activities. The model addresses the children aged from 0 to 6 years. With the participation of the experts of the partner institutions from Italy, Lithuania, Spain and Turkey, PEARL represents the international meeting point of neuro-psycho-pedagogical research and educational institutions, to build a network involving academia, teacher training organisations, educational organisations and schools for the promotion of educational models that promote pro-social skills and empathic and emotional proximal learning.

The first 6 years of children's life should be a period in which they should freely experiment and develop all their abilities and self-confidence, in order to be able to move into the primary school educational world with the proper attitude. The environment in which the children should grow is respectful of the individual and at the same time facilitates the relationship with the others, stimulating the openness to each child's abilities to reach a common goal. The preschool class should be an example for an inclusive society where all the individuals can give their contribution.

PEARL model focuses on the group, peer relationships and the development of empathic emotions for the creation of a proximal learning space. The main focus of the educational model is on the positive emotional impact on learning and educational processes, through the use of nature-related elements and educational robotics for pro-social values (cooperation, empathy, mutual aid, etc.). The project has developed and validated a new inclusive educational model based on concrete and solid neuro-psycho-pedagogical theoretical foundations, combining academic research (Vygotsky, Piaget, Montessori, metacognitive pedagogy, proximal learning, co-structural, environmental, and relational constructivism) with modern educational strategies such as peer education, cooperative learning, constructivism.

PEARL Pedagogical Approach

•Educational Emotions

One of the key concepts of PEARL pedagogical approach are the Educational Emotions. Educational Emotions are those that lead to the well-being of the child, that facilitate harmonious development and that stimulate the educational process, for example joy, trust, interest, serenity, ...

Educational emotions develop in relation to the group and the environment. Growing and learning in a positive, empathetic and emotional educational environment allow children to develop a better self-knowledge and to increase their social and relational skills. An empathic environment that welcomes the children, freeing them to express themselves to the best of their abilities and in which they learn to express their own emotions and recognise those of others. One of the fundamental elements for the development of educational emotions is, therefore, an environment that facilitates the relationship with the other, that stimulates respectful encounters open to each child's abilities.

During a positive experience, the brain releases neurotransmitters that stimulate health, facilitate memory of the event and develop neurological growth. The



neurochemical signals prompt a repetition of the experience. A positive educational experience leads to longer lasting learning. Creating a positive, emotional and empathetic environment that puts children in a positive mood therefore leads to an improvement in the child's health and learning.

Play and educational emotions

In early childhood (and also in later ages) education must be linked to positive emotions and one of the elements that most provokes this reaction is play. Since educational emotions are based on what brings a feeling of well-being to the child, play is one of the most useful elements in understanding the application of this approach. Play is not just about having fun. Through play, the child can: experiment with new cognitive paths, safely explore its limits, strengthen skills, overcome the fear of error and judgement, strengthen social (and pro-social) skills,...

Play is a natural regulator of social relationships and its value in education should be strongly taken into account not only in early childhood. During social play, children develop their ability to control themselves and their reactions. In play there are rules that must be followed, but at the same time play is characterised by imagination and creativity. Play allows the progressive acquisition of the ability to be in a group and to develop divergent and creative thinking.

•Empathic Proximal Learning Educational Environment

The group is one of the fundamental elements in the development of educative emotions because it increases the range of emotions felt by the individual. The group becomes a social corpus, with which to face difficulties and learn from each other. We call this aspect the '*Proximal Learning Environment*'. This is an evolution of Vygotsky's concept of Zone of Proximal Development. It is a transmission of knowledge, responsibilities, roles and intuitions in groups, where peer education becomes a collective, evolutionary learning process. The concept of proximity is no longer only mental/cognitive, but it takes also its concrete meaning of closeness. The group relationship, in the actual space of the class where the children act and play, fosters and nurtures the potential development of each child capacities and abilities.

Group relationships stimulate abilities, like collaboration and positive communication, they facilitate peer scaffolding and mutual help. This learning takes place playfully and naturally, developing attitudes of listening to each other. Attributes of empathy and proactivity are strengthened without external intervention, but thanks to the dynamics that are established among participants. In cooperating for a common goal, children learn to put needs of the group before their own and this is a basis for prosocial behaviour.

The respect and understanding for the emotional aspects is fundamental in the proximal learning educational environment, that is why we have underlined the importance of create an empathic atmosphere. All the children have to feel understood and respected in the expression of their feelings.

The group also acts as a motivator for the learning experience: the experience of frustration while facing difficulties is shared (and therefore better experienced), children with greater abilities become an example to be followed, communicative exchanges make the experience richer and more stimulating. Within a group emerge dynamics of closeness and estrangement, inclusion and exclusion that intensify emotions and structure the child's personality.

When group activities are designed with the development of educative emotions in mind, a positive attitude develops among the members, which then leads to the expression of support towards children with greater difficulties: a positive environment made up of positive examples leads to the development of positive attitudes.



The value of roles

The educational environment has to facilitate the proximal learning, how it has to be thought and structured to ease the relational aspect. To develop an educational environment based on educating emotions and facilitated by the relational dynamics of the small group, the teacher can act by creating roles for the children during educational activities.

The role provides the child with clear references on what to do, a task is assigned but at the same time the freedom to act and decide how to carry it out; roles also allow for greater clarity within the group, facilitating the relationship; the rotation of roles allows the child to experiment with different responsibilities, to show his or her strengths and to improve certain skills.

Roles provide a flexible structure that supports the child in experimenting with social skills.

Acquiring a role, for a child, is not a simple thing, it means having a distinctive position in the '*micro-society*' of the game that extends into the real macro-society. The attribution of a role in a playgroup context facilitates the inclusion of everyone, even those who are shy or have difficulties, since each group member has a task, therefore this attribution puts everyone on the same level. The role is also an element of acceptance by the group and of commitment to others. This is linked to the rules and function of the game itself, since in the distribution of tasks related to the use of the robot or to the game, each child has a responsibility towards the others and the goal of the game. From the role played in the group, a child can learn to be part of it and identify how they can help others.

•Teacher's Role

The role of teacher extends from a supplier or provider of knowledge to a supporter for the rules and parts played in activities. The teacher is initially a guide, but soon takes a step back and becomes a facilitator, i.e. an attentive accompanying person in the process of learning and growth that takes place in the group. As a facilitator, the teacher embodies a closer, more reachable adult model for children. Therefore, they learn from an open, curious and non-judgmental attitude to relate less anxiously or critically to novelties and unknowns.

The teacher also carries out the support function, according to those aspects and parameters that must be shared, so that each pupil knows why they have been given a role and the importance it has in the group. The teachers determine the social, emotional climate of a classroom to a large extent through dialogue, tone of voice, facial expressions, and classroom norms that they set. The teacher suspends any judgement on the results reached by the children. They have to have no expectations on the correctness of the results. The welcoming and the acceptance of the mistakes as part of the learning process is fundamental. It may happen that the teachers unintentionally communicates to the children with their non verbal and para-verbal behaviour their concern for the mistake or the expectation on the correctness of a finalized action. In this way the children learn that making errors in something wrong and this can lead to block the intention of try new things.

Inclusion of the children with disabilities

One of the fundamental elements in promoting a pedagogical model based on the Empathic Proximal Learning Environment is the importance given to the inclusion of children with disabilities in the group of peers.



Integration is often confused with inclusion. In the first case, children with disabilities and difficulties share the educational spaces with their peers; in inclusion there is a real participation in the common educational process in a communicative, relational and educative exchange of emotions that leads to the development and growth of the whole group of children. In fact, the inclusive relationship benefits both children with disabilities who will be more motivated to learn and will strengthen their communication, psycho-physical and cognitive skills, and their classmates who will develop pro-social skills of respect, acceptance of diversity, support and empathic listening.

Promoting inclusion from an early age has a lifelong impact on children and leads to the creation of a more inclusive society that is attentive to the needs of all its members.

To ease the path toward inclusion PEARL model rely on the use of educational robots that ease the relationship and that represent playful medium through which the peers can communicate beyond words.

Introduction to PEARL educational activities

The following activities have been created by the teachers participating to the training courses and to the validation phase. The teachers have developed these educational activities starting from the ideas of PEARL model. Some of the activities are challenging for the age to which they are indicated, but this is part of the approach: the challenging situations motivate the children to cooperate in group, they foster the expression of educational emotions and they stimulate new cognitive and relational skills.

The educational activities are divided for age range:

- for children from 0 to 2 years old;
- for children from 3 to 4 years old;
- for children from 5 to 6 years old.

Furthermore the teachers developed activities for different educational situations:

- For an individual child
- For a group of children
- Using educational robotics or natural elements
- Not using educational robotics

PEARL activities for children aged from 0 to 2 year old

At the early age of 0-2 years the children have very limited social skills, therefore PEARL approach to this age is focused on “planting seeds”, in other words, on the need to develop the children’s capacity of connecting to each other significantly. The way it is proposed is through the imitation of a group of teachers and the fostering of educational emotions in the group activities.

The main idea underlying these activities is that the use of natural elements and the example of the teachers’ behaviour in group, helps the children to develop social skills, cooperation and to express emotions. The main task of the educational activity is the development of cooperation skills and



educational emotions through the imitation of adult's behaviour in a finalized a game.

Stone Friends - single child	
AGE RANGE	0-2 single
Activity for...	Single child
Author	Panevezio r. Velzio kindergarten "Sytsenele", Lithuania
DURATION / TIMING:	Time is <u>not limited</u> for a child or the group of children to finish the task.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Transparent buckets (for each child), • natural material found in the kindergarten area, • 2 picture cards (one with a picture of pebbles, the other - empty), • pencils, • a container with water, • paper towels, • 3-color gouache, brushes, • sponges, • plastic, paper, metal containers for making music, mats.
PREPARATION OF THE ENVIRONMENT:	In the meadow, four spaces, 5-6 m apart, are separated by mats. In the first space, there are two pictures (one picture shows pebbles, the other picture is empty), in the second room - a container with water, paper towels, in the third - plastic, paper, metal containers for music, in the fourth - 3-colour gouache, brushes, sponges.
DETAILED DESCRIPTION: How is the activity implemented?	<p>Activities take place in kindergarten-outdoor educational spaces. The teacher shows the child a pebble and tells a short story of its appearance to her, and suggests looking for more stones together - "Friends for this pebble". The child and the teacher take a bucket and look for pebbles in the meadow, in the garden. Once collected, it is suggested to inspect the found items. In the first space, the found objects are inspected, discussed, named (it is possible that the child has collected not only pebbles but also other natural materials), they are sorted by assigning them to one or another picture (in one - pebbles, in the other - all other found natural material, the teacher draws found in the blank images items). The child chooses one of the most liked pebbles.</p> <p>The second space examines whether the pebbles are clean, waits for the child to offer, or offers to wash the pebble. They are experimenting with what happens to a pebble when it is launched in water. The actions performed are named, repeated. The child chooses for himself which place to go to the subsequent (third or fourth) space.</p> <p>In the third space, the pebbles are optionally placed in containers of different materials, and the child selectively performs movements to extract sound. The teacher sings and plays her instrument. The child welcomes the educators in their instrument. In the fourth space, it is suggested to cheer up your pebble by colouring it. They are experimenting with colours and colouring them. After colouring, it is suggested to find a sunlit place for</p>



	pebbles. Glad we helped the stones make friends.
ROLES of the CHILDREN	Learner how to copy, observer, experimenter. Watching and copying friends or waiting for adult encouragement. When acting, they express their emotions with sounds, words, gestures, facial expressions.
ROLE of the TEACHER:	The teacher is the initiator of the activity: by offering the children to "find a friend for the pebble", sorting the found objects, directing the activity in the spaces, shifting from one area to another, asking questions. Teacher-observer: searching for natural material, finding a way to wash the pebble, and choosing self-expression in the third and fourth spaces. Teacher-facilitator: allowing trying to act on their own, to try several times, to ask questions, to show examples of themselves or nearby friends.
Extra resources	-
Other remarks / Hints for the implementation	-
References, if any	-

Stone Friends - group	
AGE RANGE	0-2 single
Activity for...	Group
Author	Panevezio r. Velzio kindergarten "Syysenele", Lithuania
DURATION / TIMING:	Time is <u>not limited</u> for the group of children to finish the task.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Transparent buckets (for each child), • natural material found in the kindergarten area, • 2 picture cards (one with a picture of pebbles, the other - empty), • pencils, • a container with water, • paper towels, • 3-color gouache, brushes, • sponges, • plastic, paper, metal containers for making music, mats.
PREPARATION OF THE ENVIRONMENT:	In the meadow, four spaces, 5-6 m apart, are separated by mats. In the first space, there are two pictures (one picture shows pebbles, the other picture is empty), in the second room - a container with water, paper towels, in the third - plastic, paper, metal containers for music, in the fourth - 3-colour gouache, brushes, sponges.
DETAILED DESCRIPTION: How is the activity implemented?	Activities take place in kindergarten-outdoor educational spaces. The teacher shows the children a pebble, tells a short story about its appearance, and suggests looking for more stones together - "Friends for this pebble". Together with the teacher, the children take buckets and look for pebbles in the meadow in the garden. Once gathered, the child is offered to inspect what they and their

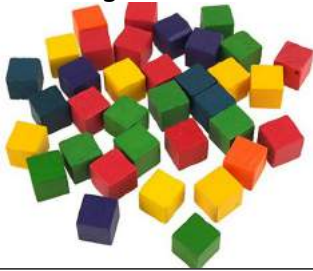



	<p>friends have found and put in the buckets.</p> <p>In the first space, the children, together with the teacher, inspect, discuss, name the found objects (it is possible that the children have collected not only pebbles but also other natural materials), sort them by assigning them to one or another picture (in one - pebbles, in the other - all other found natural material, the educator draws the items found in the blank picture). Children pick out one of their favourite pebbles.</p> <p>The second space examines whether the pebbles are clean, waits for the children to offer, or offers to wash the stone. They are experimenting with what happens to a rock when it is launched in water. The actions performed are named, repeated.</p> <p>In the third space, the pebbles are optionally placed in containers of different materials, with the children optionally making movements to extract sound. The teacher sings and plays her instrument. Children support educators with their instruments.</p> <p>In the fourth space, children are offered to cheer up their pebbles by colouring them. Children experiment with colours and means of colouring them.</p> <p>After colouring, the children are offered to find a sunlit place and put together all the friends of the pebble. It is gratifying that the children helped the stones make friends.</p>
ROLES of the CHILDREN	<p>After listening to the teacher's suggestion to "find friends", the children themselves choose the search path in the defined area.</p> <p>Repeats the teacher's action in sorting the natural material found.</p> <p>Finds a way to wash the pebble themselves.</p> <p>Choose from several musical and drawing tools.</p> <p>Learns by observing, trying to repeat, repeating, copying friends, teacher.</p>
ROLE of the TEACHER:	<p>The teacher is the initiator of the activity: by offering the children to "find a friend for the pebble", sorting the found objects, directing the activity in the spaces, shifting from one area to another, asking questions.</p> <p>Teacher-observer: searching for natural material, finding a way to wash the pebble, and choosing self-expression in the third and fourth spaces.</p> <p>Teacher-facilitator: allowing trying to act on their own, to try several times, to ask questions, to show examples of themselves or nearby friends.</p>
Extra resources	-
Other remarks / Hints for the implementation	-
References, if any	-


Let's build! - single child

AGE RANGE	0/2 y.o.
Activity for...	Single child
Author	Panevezio r. Velzio kindergarten "Sypsenele", Lithuania




DURATION / TIMING:	Time is <u>not limited</u> for a child or the group of children to finish the task.
REQUIRED MATERIALS:	<p>Building blocks coming in different colours.</p> 
PREPARATION OF THE ENVIRONMENT:	<p>A set of wooden blocks One teacher is ready to build a structure of 5-6 blocks. One child is repeating the actions of the teacher.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p><u>The task:</u> to copy the structure built by the teacher. <u>Skills to be developed:</u> attention, fine motor skills, visual perception. Activities: The teacher explains to the child what s/he is going to build. The teacher takes wooden blocks of different colours and creates the structure of 5-6 blocks slowly. At first, the teacher shows how to stack two blocks while they develop the fine motor precision and refined grasp to place blocks and releasing their hand without knocking over the blocks. The final structure is a stack of coloured blocks. After building it, the teacher asks the child to copy and develop his/her structure next to the built one. A teacher observes the child and gives some encouragement to finish the task if needed (e.g. by making one more stack of blocks.). After the child completes the activity, the teacher praises his/her efforts and achievement. <u>For the challenge: 1) Use Blocks to Make Patterns (different levels of difficulty is possible).</u> The teacher shows how to build a structure of wooden blocks with specific colours and asks the child them to copy his/her block form (e.g. the middle row is only of red blocks (on the left) or all rows are of different the same colour (on the right)).</p> 



	<p>2) Use different sizes, shapes, and even patterns of blocks to make patterns.</p> 
ROLES of the CHILDREN	<p>Learner how to copy, observer, experimenter. Watching and copying friends or waiting for adult encouragement. When acting, they express their emotions with sounds, words, gestures, facial expressions.</p>
ROLE of the TEACHER:	<p>Teacher-initiator, observer, helper. Teacher-initiator: Sets the example of the stack of wooden blocks, offers the child to copy a stack. Comments on the child's actions, encourages him to express himself. Talk to the child about the impressions, experiences at the end of the activity. The teacher is an observer: the child acts independently, discovering his ways of acting. Teacher - helper encourages and provides help if necessary and sets an extra example.</p>
Extra resources	-
Other remarks / Hints for the implementation	<p>Research (Ellis-Rech et al., 2020) tells us that early experiences with blocks stimulate the development of spatial, language, cognitive, and problem-solving skills. All of these are the literal building blocks for higher-level tasks like reading, writing, executive functioning, math, and communication skills. By building with blocks, kids are establishing concepts of cause and effect (that tower falls if I build it too high), reasoning (I need to place the blocks flat on each other, so they don't topple over), and creativity, self-esteem, STEAM concepts, early math, language, and motor planning.</p> <p>Criteria might be involved in the assessment tool:</p> <ul style="list-style-type: none"> Time spent on each activity by a single child and the group of children. A set of emotions: Mimicry, gestures, voice, other actions to express the feelings experienced. The number of words or other linguistic expressions announced The conformity of the stack built by children to the one built by the teachers (Learning to learn: try to repeat successfully)
References, if any	<p>Ellis-Rech, D. R., Lee, E., Wood, N., & Gregg, S. (2020). Interactive STEAM Education for Children: Ball Wall IQP. <i>Interactive Qualifying Projects (All Years)</i>. https://digitalcommons.wpi.edu/iqp-all/5706</p>



Let's build! - group	
AGE RANGE	0/2 y.o.
Activity for...	Group
Author	Panevezio r. Velzio kindergarten "Sypsenele", Lithuania
DURATION / TIMING:	Time is <u>not limited</u> for a child or the group of children to finish the task.
REQUIRED MATERIALS:	<p>Building blocks coming in different colours.</p> 
PREPARATION OF THE ENVIRONMENT:	<p>A set of wooden blocks A group of 2-3 teachers are ready in a team to build a structure of 5-6 (or more) blocks. A group of 5 children is repeating the actions of the group of teachers.</p>
DETAILED DESCRIPTION: How is the activity implemented?	<p><u>The task:</u> to copy the structure built by the group of the teachers. <u>Skills to be developed:</u> attention, fine motor skills, visual perception, social emotional skills. Activities: The group of teachers explains the children of the group what they are going to build as a group. The teachers start to build a structure in turn, step by step explaining what and how they are placing wooden blocks on each other. The group of teachers builds a stack of wooden blocks of different colours consisting of 5-6 blocks. At first, each teacher shows how to stack two blocks while they develop the fine motor precision and refined grasp to place blocks and releasing their hand without knocking over the blocks. The final structure is a stack of coloured blocks. After building it, one teacher of the group asks the group of children to copy and create their form next to the built one. The teachers observe the learning process of the group as a whole and separately each child within the group. If needed, the teachers give some encouragement to children to finish the task (e.g. by building one more stack of blocks.). When the task is completed, the group of the teachers start to build another stack of wooden blocks and ask the children of the group to repeat it. After the group of children finishes the activity, the teachers praise their efforts and achievements. <u>For the challenge: 1) Use Blocks to Make Patterns (different levels of difficulty is possible).</u> The teacher shows how to build a structure of wooden blocks with specific colours and asks the child them to copy his/her block form (e.g. the middle row is only of red blocks (on the left) or all rows are of different the same colour (on the right)).</p>





2) Use different sizes, shapes, and even patterns of blocks to make patterns.



ROLES of the CHILDREN

Learners to copy, Motivators, Contributors
Watching and copying friends or waiting for adult encouragement. When acting, they express their emotions with sounds, words, gestures, facial expressions.

ROLE of the TEACHER:

Teacher-initiator, observer, helper.
Teacher-initiator: Sets the example of the stack of wooden blocks, offers the child to copy a stack. Comments on the child's actions, encourages him to express himself. Talk to the child about the impressions, experiences at the end of the activity.
The teacher is an observer: the child acts independently, discovering his ways of acting.
Teacher - helper encourages and provides help if necessary and sets an extra example.

Extra resources

-

Other remarks / Hints for the implementation

Research (Ellis-Rech et al., 2020) tells us that early experiences with blocks stimulate the development of spatial, language, cognitive, and problem-solving skills. All of these are the literal building blocks for higher-level tasks like reading, writing, executive functioning, math, and communication skills. By building with blocks, kids are establishing concepts of cause and effect (that tower falls if I build it too high), reasoning (I need to place the blocks flat on each other, so they don't topple over), and creativity, self-esteem, STEAM concepts, early math, language, and motor planning.
Criteria might be involved in the assessment tool:
Time spent on each activity by a single child and the group of children.
A set of emotions: Mimicry, gestures, voice, other actions to express the feelings experienced.
The number of words or other linguistic expressions announced



	The conformity of the stack built by children to the one built by the teachers (Learning to learn: try to repeat successfully)
References, if any	Ellis-Rech, D. R., Lee, E., Wood, N., & Gregg, S. (2020). Interactive STEAM Education for Children: Ball Wall IQP. <i>Interactive Qualifying Projects (All Years)</i> . https://digitalcommons.wpi.edu/iqp-all/5706

Aromatic Garden - single child	
AGE RANGE	0/2
Activity for...	Single child with nature elements
Author	Name of the teacher / expert
DURATION / TIMING:	10 Months, twice a week 30 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Cloth bags made by parents or other family members • Various seeds or fragrant flower and herbs (lavender, rosemary, mint...) • Cardboard boxes • Sensory paths
PREPARATION OF THE ENVIRONMENT:	Exit to the garden for sensory stimulation or inside with odorous bags.
DETAILED DESCRIPTION: How the activity is implemented?	The child discovers the characteristics of aromatic herbs, flowers and plants. Organize natural elements by shape, color, scent, touch, taste...
ROLES of the CHILDREN	The child looks for differences and choose herbs of various fragrance.
ROLE of the TEACHER:	<p>Premise: Development and enhancement of sensory integration, or the process by which the CNS receives information from the receptors of all the senses and consequently organizes this information, interprets it, categorizes it to apply it, use it in daily actions. Enhance educational experiences outdoors to enhance tactile, olfactory, visual, gustatory, auditory and kinesthetic development. Creation of outdoor educational practices for the enhancement of the territory. Creation of unplugged and digital coding paths for the enhancement of the previously mentioned learning.</p> <p>The teacher is a figure of help and facilitation, of organizer and observer of the psychic and cultural life of the child. The teacher shows: ability to observe children and the interactions between them and the environment; analysis and use of development material, which is always open to new and surprising novelties; respect for learning times and rhythms always linked to individual differences and variables; respect for the child's free choices as a prerequisite for a calm, tranquil, peaceful psycho-social environment; extent of direct intervention limited to the essential and necessary so that individual work is not disturbed; careful preparation of activities in view of the child's self-educational work.</p>
Extra resources	Nature guide, psychomotor, parents, relatives.



Other remarks / Hints for the implementation	Montessori and Munari material for sensorial stimulation M9 – '900's museum - VE Children's museum – VR Artistic paths of Peggy Guggenheim's collection
References, if any	Reggio children approach I cento linguaggi dei bambini (L. Malaguzzi) Matthew Lipman, Elfie (Adattamento, cura e traduzione di Maura Striano) Philosophy for children: un curriculum per imparare a pensare (a cura di Marina Santi) Attività Montessori all'aperto (M. Versiglia) Educare in natura. Strumenti psicomotori per l'educazione all'aperto (L. Carpi) Outdoor education. L'educazione si-cura all'aperto (R. Farnè, F. Agostini) http://iesbologna.it/wp-content/uploads/2019/01/Quaderno-educare-aperto-DEF-1.pdf Per una storia delle scuole all'aperto in Italia (M. D'Ascenzo)

Aromatic Garden - group	
AGE RANGE	0/2
Activity for...	Group of children with nature elements (group of 5 members)
Author	Name of the teacher / expert
DURATION / TIMING:	10 Months, twice a week 30 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Cloth bags made by parents or other family members • Various seeds or fragrant flower and herbs (lavender, rosemary, mint...) • Cardboard boxes • Sensory paths
PREPARATION OF THE ENVIRONMENT:	Preparation of the aromatic garden and the small vegetable garden. Creation of natural sensory paths where children move following olfactory, visual or tactile stimuli (independently or guided by the teacher)
DETAILED DESCRIPTION: How the activity is implemented?	They discover the characteristics of aromatic herbs, flowers and plants. Organize natural elements by shape, color, scent, touch, taste. Children divided into groups take care of different plant species, compare growth and production. In a sort of fragrant labyrinth they travel along roads guided by the senses (touch, smell, sight ...).
ROLES of the CHILDREN	Inside the classroom, the presence of the "nature table" which allows them to observe, discover, experiment and study what has been collected outside and to prepare further activities. In the garden, sowing, cultivating and harvesting, also clearing avenues or flowerbeds of bad plants, sweeping away dry leaves, or pruning some branches.
ROLE of the TEACHER:	Premise: Development and enhancement of sensory integration, or the process by which the CNS receives information from the receptors of all the senses and consequently organizes this information,



	<p>interprets it, categorizes it to apply it, use it in daily actions. Enhance of educational experiences outdoors to enhance tactile, olfactory, visual, gustatory, auditory and kinesthetic development. Creation of outdoor educational practices for the enhancement of the territory. Creation of unplugged and digital coding paths for the enhancement of the previously mentioned learning.</p> <p>The teacher is a figure of help and facilitation, of organizer and observer of the psychic and cultural life of the child. The teacher shows: ability to observe children and the interactions between them and the environment; analysis and use of development material, which is always open to new and surprising novelties; respect for learning times and rhythms always linked to individual differences and variables; respect for the child's free choices as a prerequisite for a calm, tranquil, peaceful psycho-social environment; extent of direct intervention limited to the essential and necessary so that individual work is not disturbed; careful preparation of activities in view of the child's self-educational work.</p>
Extra resources	Nature guide, psychomotor, parents, relatives.
Other remarks / Hints for the implementation	<p>Montessori and Munari material for sensorial stimulation</p> <p>M9 - '900's museum - VE</p> <p>Children's museum - VR</p> <p>Artistic paths of Peggy Guggenheim's collection</p>
References, if any	<p>Reggio children approach</p> <p>I cento linguaggi dei bambini (L. Malaguzzi)</p> <p>Matthew Lipman, Elfie (Adattamento, cura e traduzione di Maura Striano)</p> <p>Philosophy for children: un curriculum per imparare a pensare (a cura di Marina Santi)</p> <p>Attività Montessori all'aperto (M. Versiglia)</p> <p>Educare in natura. Strumenti psicomotori per l'educazione all'aperto (L. Carpi)</p> <p>Outdoor education. L'educazione si-cura all'aperto (R. Farnè, F. Agostini)</p> <p>http://iesbologna.it/wp-content/uploads/2019/01/Quaderno-educare-aperto-DEF-1.pdf</p> <p>Per una storia delle scuole all'aperto in Italia (M. D'Ascenzo)</p>

Throwing balls into water - single child	
AGE RANGE	0/2
Activity for...	Single child with nature elements
Author	Name of the teacher / expert
DURATION / TIMING:	10/15 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Bag • balls • a pool or a bigger container • water.



PREPARATION OF THE ENVIRONMENT:	Prepare bag, balls, a pool or a bigger container filled in with water.
DETAILED DESCRIPTION: How the activity is implemented?	<p><u>The task:</u> to collect and throw a set of balls into the container with water.</p> <p>Skills to be developed:</p> <ul style="list-style-type: none"> • Cognitive challenge: <ul style="list-style-type: none"> • Physical - To develop great motor skills: to bend down, lean on your hand, combine the actions of the hand to the eye, to maintain the balance of the body. Develop fine motor skills: grab the ball, turn it, squeeze/release your fingers. To realize the movement of balls dropped into water (are they drowning, are they sailing, what are the sounds, are they bouncing, etc.) • Linguistic - Name yourself or repeat the actions and things named by the teacher (looking for, going, squatting, throwing, ball, round, one / many). • <i>The challenge is to foster empathy and pro-social values</i> - to trust only in your strength. Mimicry, gestures, voice, actions to express the feelings experienced. Choose your ways of doing things or repeat the teacher's actions. Respond to the adult's suggestions, encouragement, in case of difficulties to seek help. Initiative and Perseverance: to overcome challenges (repeat the failed action to achieve the expected result, fail, show facial expressions, gestures, words that need help, try already known ways of action or observe others to try new ways of doing things). Learning to learn: try to repeat a successful action. <p>Activities:</p> <p>Activities take place in the kindergarten's gym or outdoor. The teacher brings a bag with balls, put them on the ground, offers the child to collect and throw them into the pool as the bag turns out to be hollow. The child is encouraged to look for the scattered balls and throw them into the pool, the teacher comments on the words related to the action (one ball, throw the ball into the pool, where is the other ball, how many balls, etc.). If the child needs help, the teacher encourages her/him by showing an example. After throwing all the balls, the child and the teacher enjoy the activity. Communicates about impressions and experiences.</p> <p>Expected result:</p> <p>Attention, large and fine motor skills (observation, bending, recline, arm extension, standing up, walking, throwing, throwing). The child persistently pursues the goal of collecting and throwing a set of balls. Challenges (find, carry, throw) try to act on your own, or with the help of an adult. Interacts with an adult in an activity. Name the means - the pool, the balls, say in a few words what you are doing, seeing, experiencing. Expresses emotions while acting.</p>
ROLES of the CHILDREN	<p>Learner</p> <p>Child actions: The child watches what the teacher brings, seeing the scattered balls rush to collect them, the teachers offer to throw the balls into the pool, he carries the balls closer to the pool and throws, failing to throw again trying. When acting, they</p>



	express their emotions with sounds, words, gestures, facial expressions. Experienced impressions at the end of the activity are shown in a few words accompanied by gestures, facial expressions.
ROLE of the TEACHER:	Teacher-initiator, observer, helper. Teacher-initiator: offering the child to collect the balls and throw them into the pool. Comments on the child's actions, encourages him to express himself. Talk to the child about the impressions, experiences at the end of the activity. The teacher is an observer: the child acts independently, discovering his own ways of acting. Teacher - helper: by encouraging the collection of all the balls, throwing them into the intended container (pool), noticing that the child fails by encouraging him orally, providing help if necessary and setting an example.
Extra resources	
Other remarks / Hints for the implementation	
References, if any	

Throwing balls into water - group	
AGE RANGE	0/2
Activity for...	Group of children with nature elements (5 members)
Author	Name of the teacher / expert
DURATION / TIMING:	10/15 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Bag • balls • a pool or a bigger container • water.
PREPARATION OF THE ENVIRONMENT:	Prepare bag, balls, a pool or a bigger container filled in with water.
DETAILED DESCRIPTION: How the activity is implemented?	<p><u>The task:</u> collect and throw a set of balls into the container with water.</p> <p>Skills to be developed:</p> <ul style="list-style-type: none"> • Cognitive challenge: <ul style="list-style-type: none"> • Physical - To develop great motor skills: to bend down, lean on your hand, combine the actions of the hand to the eye, to maintain the balance of the body. Develop fine motor skills: grab the ball, turn it, squeeze/release your fingers. To realize the movement of balls dropped into water (are they drowning, are they sailing, what are the sounds, are they bouncing, etc.) • Linguistic - To name yourself or repeat the actions and things named by the teacher (looking for, going, squatting, throwing, ball, round, one / many). • <i>The challenge is to foster empathy and prosocial values - to trust only in your strength. Mimicry, gestures, voice, actions to</i>



	<p>express the feelings experienced. Choose your ways of doing things or repeat the teacher's actions. Respond to the adult's suggestions, encouragement, in case of difficulties to seek help. Initiative and Perseverance: to overcome challenges (repeat the failed action to achieve the expected result, fail, show facial expressions, gestures, words that need help, try already known ways of action or observe others to try new ways of doing things). Learning to learn: try to repeat a successful action.</p> <p><u>Activities:</u> Activities take place in the kindergarten's gym or outdoor. The teacher brings the children a bag loaded with balls, put them on the ground, offers the children to collect and throw them in the pool as the bag turns out to be hollow. The teacher monitors the children's reactions and actions when they find a pool filled with water. Children are encouraged to look for the scattered balls and throw them into the pool in the hall, the teacher comments on the words related to the action (one ball, throw the ball into the pool, where is the other ball, how many balls do they fall into the water. After throwing all the balls, the children and the teacher enjoy the activity. Communicates about impressions and experiences.</p> <p><u>Expected result:</u> Attention, large and fine motor skills (observation, bending, recline, arm extension, standing up, walking, throwing, throwing). The children persistently pursue the goal of collecting and throwing a set of balls. Overcoming challenges (finding, carrying, throwing) tries on their own, learning from the example of friends or with the help of an adult. Interacts in joint activities. Name the means - pool, water, balls, say in a few words what works, sees, experiences. Expresses emotions while acting.</p>
ROLES of the CHILDREN	<p>Learner, Motivator Child's actions: children watch what the teacher brings, see the scattered balls in a hurry to collect them, hear the teacher's offer to throw the balls in the pool, take them closer to the pool and throw, try to throw again and again, some children try their own activities, others watch and copying friends or waiting for adult encouragement. Repeats actions that provide joyful emotions. When acting, they express their emotions with sounds, words, gestures, facial expressions.</p>
ROLE of the TEACHER:	<p>Teacher-initiator: offering children to collect spilled balls and throw them into a pool filled with water. Commenting on actions taken by children. Conducting a frontal survey at the end of the activity. Teacher-observer: children acting independently, discovering their own ways of acting, or learning from the example of peers. Teacher-facilitator: Encouraging children to collect balls together, throwing them into the intended container (pool), noticing that the child fails by encouraging him orally, providing help if necessary and setting an example or encouraging attention as others do.</p>
Extra resources	
Other remarks / Hints for the implementation	



PEARL activities for children aged from 3 to 4 year old

With the children aged 3 to 4 years, the aim of the educational activities is to foster the developing of educational emotions and of an empathetic proximal learning environment supported by the use of a robot as an engaging tool that accelerates the educational processes and that influences communication and inclusion. From the didactical point of view the activity will also permit to introduce basic competences on robotic. Some of the educational activities are challenging for the pupils so it will be possible to observe the reactions (positive and negative) to frustration, the rising of educational emotions and how they influence communication and inclusion.

The robot used in a small group with certain activities facilitates the development of educational emotions and fosters a proximal learning environment.

Animals and baby animals - group without robot	
AGE RANGE	3-4 y.o.
Activity for...	Group without robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	35-40 min.
REQUIRED MATERIALS:	Cards with animals and cards with those animal's young (2 units each).
PREPARATION OF THE ENVIRONMENT:	Cards with animals and cards with those animal's young (2 units each): Dog-puppy; Horse-foal; Sheep-lamb; Cat-kitten; Pig-piglet; Goat-kid; Cow-calf.
DETAILED DESCRIPTION: How is the activity implemented?	Cards with animals are turned over (not shown), and their baby animals are shown. The kids figure out who will start first, who will be second, and so on. The child pulls out a card with a animal, tells what the animal is like and looks for what the baby animal is like by naming it. The teacher asks the child to describe the animal. What's its fur? What does it eat? What else does it do? And so on, the cards are drawn by other children in a row, also describing what the animal and what its baby animal is, describing the animal and its baby animal.
ROLES of the CHILDREN	Consult and help each other.







































	It is your turn to take action.
ROLE of the TEACHER:	The teacher says the tasks, helps, monitors children's activities when children encounter an obstacle, interacts with children, helps, tells exactly the name of baby animals.
EXTRA RESOURCES	Paper
Other remarks / Hints for the implementation	
References, if any	-

Animals and baby animals - group with robot

AGE RANGE	3-4 y.o.
Activity for...	Group with robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	35-40 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and Board. • Cards with animals and cards with those animal's young (2 units each). • Card with the inscription START.
PREPARATION OF THE ENVIRONMENT:	<p>Cards with animals and cards with those animal's young (2 units each).</p> <p>A mat consisting of 20 squares (each of them is 15x15 cm).</p> <p>Cards: Dog-puppy; Horse-foal; Sheep-lamb; Cat-kitten; Pig-piglet; Goat-kid; Cow-calf.</p>
DETAILED DESCRIPTION: How is the activity implemented?	<p>Cards with animals are turned over (not shown), and their baby animals are shown.</p> <p>The teacher suggests that the children find the animal they have pulled out using a robot. For the first child, the robot is placed on the START card and the child programs the robot to go to the animal that the child pulled out and then to the baby of that animal. Children must identify what those animals are and how their babies are called.</p> <p>The following child programs the robot from where it stands.</p> <p>After the activity, the children can fold the cards over again and</p>

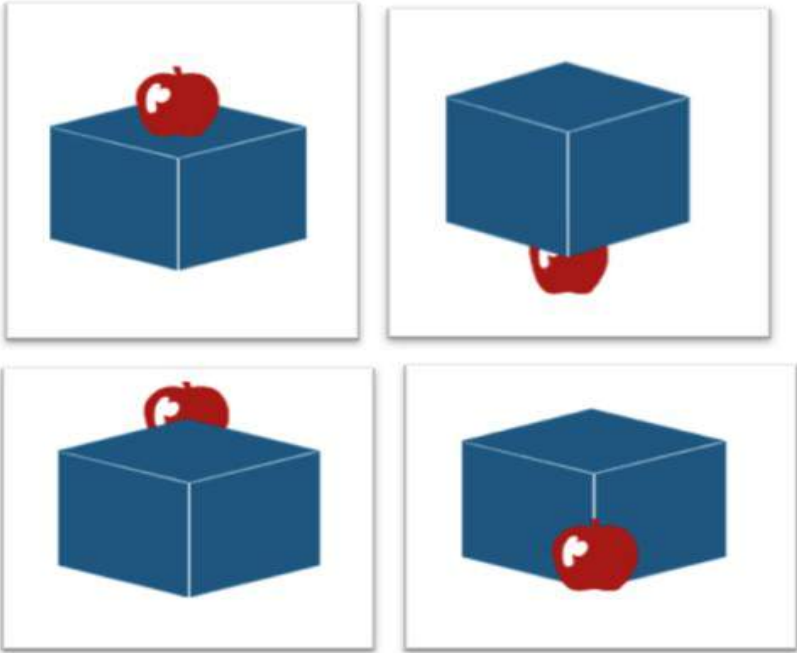


	<p>pull out again or exchange with a friend to ask the friend to name the baby of the animal he has.</p> <table><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>START</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>													START							
																					
																					
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ROLES of the CHILDREN	<p>Consult and help each other.</p> <p>It is your turn to take action.</p>																				
ROLE of the TEACHER:	<p>The teacher says the tasks, helps, monitors children's activities when children encounter an obstacle, interacts with children, helps, tells exactly the name of baby animals.</p>																				
EXTRA RESOURCES	<p>Paper</p>																				
Other remarks / Hints for the implementation	<p>There may be cards on the mat that the children have not taken.</p>																				
References, if any	<p>-</p>																				

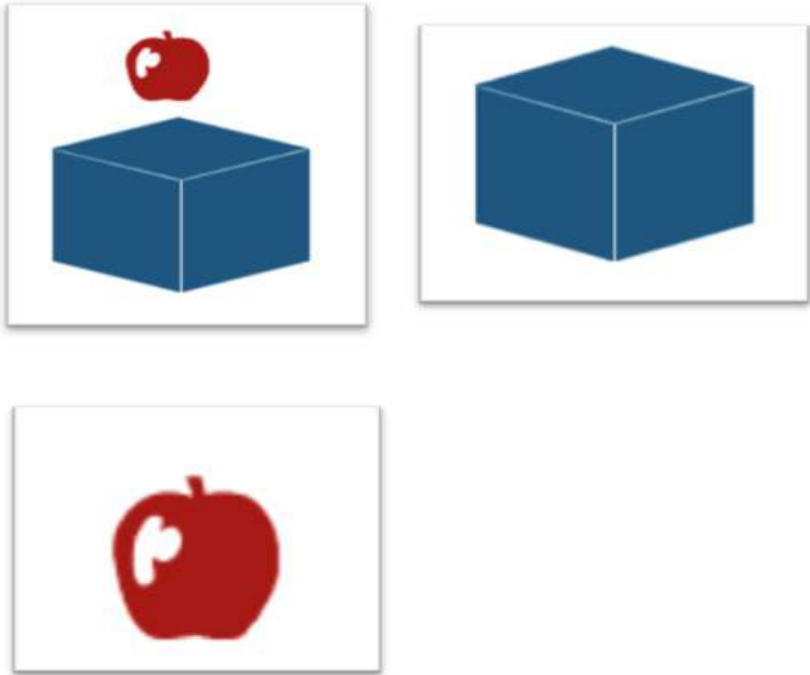
Where is an apple? - Group without robot

AGE RANGE	3-4 y.o.
Activity for...	Group without robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	35-40 min.
REQUIRED	<ul style="list-style-type: none"> Game dice with pictures "Where is the apple?".



<p>MATERIALS:</p>	<ul style="list-style-type: none"> • Cards with pictures depicting where the apple is: on the cube, in front of the cube, above the cube, under the cube, behind the cube. Dice with pictures where there is an apple. • Card with the inscription START.
<p>PREPARATION OF THE ENVIRONMENT:</p>	<p>Cards with pictures depicting where the apple is: on the cube, before the cube, above the cube, under the cube, behind the cube. Game dice with pictures where there is an apple.</p>
<p>DETAILED DESCRIPTION: How is the activity implemented?</p>	<p>The teacher shows a card with the picture "Where is the apple" and asks Where is the apple? If the children say incorrectly, the teacher corrects them. This way, the teacher introduces all the cards to the children. Then introduces the rules: to roll the dice, name the picture rolled out, and find the card.</p> <p>The children roll the dice and look for the picture.</p> <div data-bbox="520 1043 1321 1693">  <p>The image shows four separate cards, each containing a 3D blue cube. A red apple is positioned in a different location relative to the cube on each card: 1. Top-left card: Apple is on top of the cube. 2. Top-right card: Apple is in front of the cube. 3. Bottom-left card: Apple is behind the cube. 4. Bottom-right card: Apple is to the side of the cube, appearing to be on the front face.</p> </div>




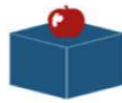











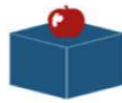











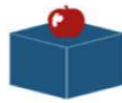










	
ROLES of the CHILDREN	<p>Negotiates the actions in the game.</p> <p>It is your turn to take action.</p> <p>Solves problems.</p> <p>Collaborates to achieve a goal.</p>
ROLE of the TEACHER:	<p>The teacher explains the concepts if the children do not know them, asks questions, and explains the game's rules.</p> <p>Monitors children's activities, when children encounter an obstacle, or fails to solve a problem, helps, explains together with children.</p>
EXTRA RESOURCES	-
Other remarks / Hints for the implementation	<p>This activity can also be done with children aged 5-6 by preparing a dice and cards with other terms: below, between, and so on.</p>
References, if any	-

Where is an apple? - Group with robot

AGE RANGE	3-4 y.o.
Activity for...	Group with robot



Author	Panevezio r. Dembavos kindergarten “Smalsutis”, Lithuania																				
DURATION / TIMING:	35-40 min.																				
REQUIRED MATERIALS:	<ul style="list-style-type: none">Robot and board,game dice with pictures "Where is the apple?".Cards with pictures depicting where the apple is: on the cube, in front of the cube, above the cube, under the cube, behind the cube. Dice with pictures where there is an apple.Card with the inscription START.																				
PREPARATION OF THE ENVIRONMENT:	A mat consisting of 20 boxes. Cards with pictures depicting where the apple is: on the cube, before the cube, above the cube, under the cube, behind the cube. Game dice with pictures where there is an apple.																				
DETAILED DESCRIPTION: How is the activity implemented?	<p>The teacher shows a card with the picture "Where is the apple" and asks Where is the apple? If the children say incorrectly, the teacher corrects them. This way, the teacher introduces all the cards to the children. The children roll the dice, name the picture rolled out, and at the START card, program the robot to go to the same picture as the rolled dice. During the action, the child tries to program the robot himself, if fails, asks friends for help.</p> <table><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>START</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>													START							
																					
																					
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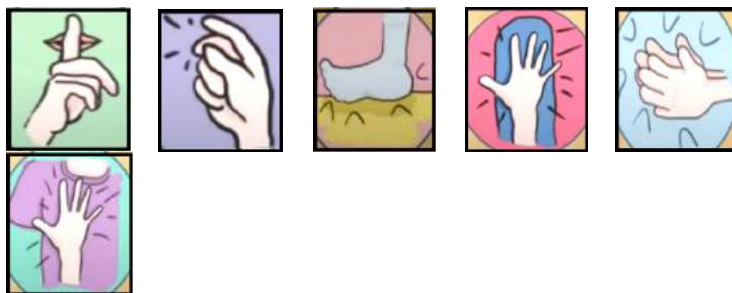


ROLES of the CHILDREN	Negotiates the actions in the game. It is your turn to take action. Solves problems. Collaborates to achieve a goal.
ROLE of the TEACHER:	The teacher explains the concepts if the children do not know them, asks questions, and explains the game's rules. Monitors children's activities, when children encounter an obstacle, or fails to solve a problem, helps, explains together with children.
EXTRA RESOURCES	-
Other remarks / Hints for the implementation	This activity can also be done with children aged 5-6 by preparing a dice and cards with other terms: below, between, and so on.
References, if any	-

Spring grasslands in the nursery yard - Group with robot	
AGE RANGE	3-4 y. o.
Activity for...	Group with robot
Author	Panevezio r. Naujamiescio kindergarten "Bitute", Lithuania
DURATION / TIMING:	20-25min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and mat, • cards with photos of plants.
PREPARATION OF THE ENVIRONMENT:	Room for 5 children. It is essential to have a calm environment so that no one is distracted.
DETAILED DESCRIPTION: How the activity is implemented?	<p>They will tell you which plants on the mat you know, will name them correctly.</p> <p>Each child will choose their favourite plant.</p> <p>I will count with friends how many boxes the robot will need to travel to the box of its choice.</p> <p>Will discuss how many and which buttons will be pressed by the robot. Perform the action until the robot moves to the desired plant.</p>
ROLES of the CHILDREN	Take turns performing tasks, talking and helping each other.




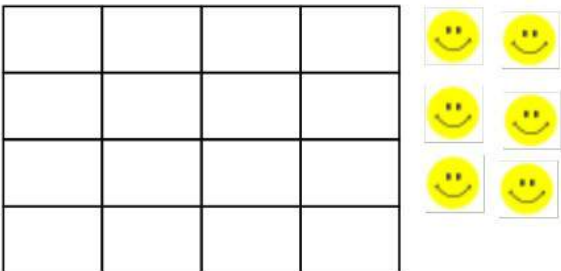


ROLE of the TEACHER:	The teacher tells the tasks, helps, monitors and evaluates who performed the tasks faster and more correctly.
EXTRA RESOURCES	-
Other remarks / Hints for the implementation	We believe that individually or in a small group, a child can concentrate better and perform tasks correctly.
References, if any	-

Follow the rhythm - Group without robot

AGE RANGE	3/4
Activity for...	Group without robot
Author	Mine Güntaş, Melisa Kızılkaya, Dilara Oral, Tefik Fikret Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> 5 pieces of all kinds of picture rhythm cards and 1 piece of pattern cards are prepared. (5 sets of cards with rhythm visuals) <p>Picture Rhythm Cards:</p>  <p>Pattern Cards:</p>  <ul style="list-style-type: none"> A mat of sufficient size for the cards to be placed on top (could be hook and loop board, mat, styrofoam or blackboard). 



	<ul style="list-style-type: none"> Two boxes, green and red, in which the cards will be placed (ready pattern cards are placed in the red box, cards with rhythm visuals are placed in the green box.) <p>Green Box with Picture Rhythm cards:</p> <p>Red Box with Pattern cards:</p>   <ul style="list-style-type: none"> Medals to distribute roles in groups (speaker, director, player, coach and referee)  <ul style="list-style-type: none"> Empty table to place happy faces. 
PREPARATION OF THE ENVIRONMENT:	Children should be in an empty space suitable for the activity environment outside the classroom under the guidance of the teacher.
DETAILED DESCRIPTION: How the activity is implemented?	<ul style="list-style-type: none"> The teacher stands against the group of 5 people. The cards inside the box are examined so that children become familiar with the cards. Simple patterns are created with cards. <p>1st Stage:</p>



	<ul style="list-style-type: none"> • A pattern game with rhythm is played with cards. • Cards with rhythm visuals are distributed to children. • Cards are randomly distributed to children. Each child gets 5 cards. • The teacher selects a pattern card with rhythm visuals from the red box. • The child with the card at the beginning of the pattern starts the game. (If more than one person has this card, the first to notice starts, the other takes action when it's their turn in the pattern.) • The child shows the card by making the rhythm in the visual. Behind him/her, the child with the card that needs to be lined up in the pattern shows his/her card and makes the rhythm on the card. The game continues in this way until the cards in their hand are exhausted. • When the pattern is finished, the rhythm pattern is animated together. • After animation, a pattern is created on the hook and loop board. • After the game is played for 1 round depending on the interests and wishes of the children, the teacher can collect the cards and distribute them again. <p>2nd Stage</p> <ul style="list-style-type: none"> • After the children gain experience with the previous activities, the teacher distributes the materials to the children to give the roles. Accordingly, children enter the roles of coach, referee, director, speaker and player.
ROLES of the CHILDREN	<ul style="list-style-type: none"> • The Speaker tells a pattern by looking at the visuals on the Platform. For example, the pattern of "clapping, tapping the strings, snapping fingers" • The Player is the person who will find the pattern cards to sort the pattern that the speaker tells. (For example, the speaker told the pattern of 'clapping, tapping the knee, snapping fingers...', the player will find the visuals 'clapping, tapping the knee, snapping fingers...' by repeating 3 times in accordance with the pattern order.) • The Coach will be the person who will ask the Player to put the rhythm cards he/she finds on the board according to the rule of the pattern. The selected person will animate the pattern suitable for the visuals after sorting the pattern. • The Referee will be the person who will say whether the selected cards (cards on the board) are correct or if the group needs to reconsider the choices. The activity will continue until the pattern variations within the platform are



	<p>finished.</p> <ul style="list-style-type: none"> • The Director will make sure everyone is doing their part and maintain order. • Evaluation is made by the referee placing a smile on the happy face board. •
ROLE of the TEACHER:	<ul style="list-style-type: none"> • He/she provides materials. • In the 1st stage, he/she explains the rules of the game to the children and distributes the cards. • In the 2nd stage, he/she provides the distribution of roles, clarifies the tasks related to each role. • It strengthens the activity process and cooperation between children.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	<p>EVALUATION:</p> <ul style="list-style-type: none"> • How did you feel when we made patterns with the sounds? • Which rhythm pattern did you like the most? • If you wanted to create a different pattern, what would be the rhythm you would like to add? • What else can we use other than rhythm to create a pattern?
References, if any	

Follow the rhythm - Group with robot	
AGE RANGE	3-4
Activity for...	Group with robot
Author	Mine Gntař, Melisa Kızılkaya, Dilara Oral, Tevfik Fikrett Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • 5 pieces of all kinds of picture rhythm cards and 1 piece of pattern cards are prepared. (5 sets of cards with rhythm visuals) <p>Picture Rhythm Cards:</p>





Pattern Cards:



- A mat of sufficient size for the cards to be placed on top (could be hook and loop board, mat, styrofoam or blackboard).



- Educational robot Clementoni Doc
- The platform prepared according to Robot Doc at the activity.



- Two boxes, green and red, in which the cards will be placed (ready pattern cards are placed in the red box, cards with rhythm visuals are placed in the green box.)

Green Box with Picture Rhythm cards:



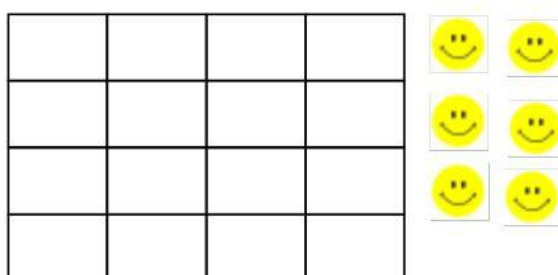
Red Box with Pattern cards:



- Medals to distribute roles in groups (speaker, director, player, coach and referee)



- Empty table to place happy faces.



PREPARATION OF THE ENVIRONMENT:

Children should be in an empty space suitable for the activity environment outside the classroom under the guidance of the teacher.





DETAILED DESCRIPTION: How the activity is implemented?

- The teacher stands against the group of 5 people.
- The cards inside the box are examined so that children become familiar with the cards. Simple patterns are created with cards.

1st Stage:

- A pattern game with rhythm is played with cards.
- Cards with rhythm visuals are distributed to children.
- Cards are randomly distributed to children. Each child gets 5 cards.
- The teacher selects a pattern card with rhythm visuals from the red box.
- The child with the card at the beginning of the pattern starts the game. (If more than one person has this card, the first to notice starts, the other takes action when it's their turn in the pattern.)
- The child shows the card by making the rhythm in the visual. Behind him/her, the child with the card that needs to be lined up in the pattern shows his/her card and makes the rhythm on the card. The game continues in this way



	<p>until the cards in their hand are exhausted.</p> <ul style="list-style-type: none"> • When the pattern is finished, the rhythm pattern is animated together. • After animation, a pattern is created on the hook and loop board. • After the game is played for 1 round depending on the interests and wishes of the children, the teacher can collect the cards and distribute them again. <p>2nd Stage</p> <ul style="list-style-type: none"> • After the children gain experience with the previous activities, the teacher distributes the materials to the children to give the roles. Accordingly, children enter the roles of coach, referee, director, speaker and player. • The teacher lays the platform on which the robot will be used. The visuals on the platform are examined. • Children are told that the starting point of the robot is the whistle visual. • Then the roles are explained to the children. • During the activity, if the player comes across the note or microphone visuals on the platform during a coding, <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="text-align: center;">  </div> <div style="margin: 0 10px;"> <p>If the robot comes here,</p> </div> <div style="text-align: center;">  </div> <div style="margin: 0 10px;"> <p>it must melodiously say the name of a friend in the group.</p> </div> </div> <div style="display: flex; align-items: center; justify-content: center; margin: 10px 0;"> <div style="text-align: center;">  </div> <div style="margin: 0 10px;"> <p>If the robot comes here,</p> </div> <div style="text-align: center;">  </div> <div style="margin: 0 10px;"> <p>it must form a pattern with 3 different features of a friend in the group. (helpful, smiling, blue-eyed...)</p> </div> </div> <ul style="list-style-type: none"> • Evaluation is made by the referee placing a smile on the happy face board.
<p>ROLES of the CHILDREN</p>	<ul style="list-style-type: none"> • The Speaker tells a pattern by looking at the visuals on the Platform. • The Player will be the person to guide the robot to sort the pattern the speaker tells. (For example, the speaker told the pattern of 'clapping, tapping the knee, snapping fingers...', the player will repeat the pattern 3 times in accordance with the pattern and go over the visuals of 'clapping, tapping the knee, snapping fingers...'.) • The Coach will ask a child in the group to find the rhythm cards with which the player moves on the platform with the robot from inside the green box and will be the person who will ask them to put these rhythm cards on the board in accordance with the rule of the pattern. The selected person will animate the pattern suitable for the visuals after sorting the pattern. • The Referee will be the person who will say whether the



	<p>selected cards (cards on the board) are correct or if the group needs to reconsider the choices. The activity will continue until the pattern variations within the platform are finished.</p> <ul style="list-style-type: none"> • The Director will make sure everyone is doing their part and maintain order.
ROLE of the TEACHER:	<ul style="list-style-type: none"> • He/she provides materials. • In the 1st stage, he/she explains the rules of the game to the children and distributes the cards. • In the 2nd stage, he/she provides the distribution of roles, clarifies the tasks related to each role. • It strengthens the activity process and cooperation between children.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	<p>EVALUATION:</p> <ul style="list-style-type: none"> • How did you feel when we made patterns with the sounds? • Which rhythm pattern did you like the most? • If you wanted to create a different pattern, what would be the rhythm you would like to add? • What else can we use other than rhythm to create a pattern?
References, if any	

Recycling Game - group without robot	
AGE RANGE	3-4
Activity for...	Group without robot
Author	Nazmiye TAŞYARAN, Deniz Sultan ŞAHBAZ, Yeşilevler Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Pictures of Recycling Waste, • Pictures of Recycling Waste Bins, • Play Paste, • Matching Board, • Evaluation Board, • Yellow-Green-Blue Task Cards.





Glass Waste



Paper Waste






Plastic Waste

*Waste pictures are prepared with the same color frame as the waste bin they will be dropped in. For example; the edges of glass wastes are framed with green cardboard, the edges of paper wastes are framed with blue cardboard and the edges of plastic wastes are framed with yellow cardboard.



Recycling Waste Bins



<p>PREPARATION OF THE ENVIRONMENT:</p>	<p>Conversation is made with the children about which waste is recyclable. It is discussed why this waste should be recycled and what effects it has on our nature and our world. Banners related to recycling are examined from the smart board. The materials to be used during the activity are brought to the environment. They are placed on the table and the boards are hung where children can reach them.</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>The teacher brings the recycling waste bins that he/she hangs on the hook and loop board and guides the children to examine them. He/she then places the box with pictures of recyclable wastes in the middle. Children do the activity of collecting the waste pictures and throwing them into the relevant waste bin with their task cards. For example, the child who chooses the blue card collects the paper wastes and throws them into the blue waste bin. The child choosing the green task card finds the glass waste pictures and throws them into the green waste bin. The child who receives the yellow task card finds the plastic waste pictures and throws them into the yellow waste bin. Other children give feedback on the correct completion of the task. (The pictures with the waste were previously pasted on the cardboard of the same color as the waste bin.)</p>  <p>1.The child chooses the task card</p>  <p>2. He/she finds the pictures related to the card</p>  <p>3. He/she throws it into the relevant waste bin</p>
<p>ROLES of the CHILDREN</p>	<p>Collecting the same type of wastes and throwing them into the relevant recycling waste bin. Children other than the player check</p>



	whether the player collects all the wastes correctly. They make suggestions to the player in cases that are not correct.
ROLE of the TEACHER:	The teacher acts as a guide. He/she guides children through the matching game.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: During the game, the child is expected to self-evaluate whether the waste is in the right waste bin or not. The children evaluate the results together. Each child places their own smiling face on the evaluation board.
References, if any	

Recycling Game - group with robot	
AGE RANGE	3-4
Activity for...	Group with robot
Author	Nazmiye TAŞYARAN, Deniz Sultan ŞAHBAZ/Yeşilevler Kindergarten,Turkey
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Pictures of Recycling Waste, • Pictures of Recycling Waste Bins, • Play Paste, • Robot, • Matching Board, • Evaluation Board, • Yellow-Green-Blue Task Cards, • Robot platform. <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Glass Waste</p>





Paper Waste



Plastic Waste

*Waste pictures are prepared with the same color frame as the waste bin they will be dropped in. For example; the edges of glass wastes are framed with green cardboard, the edges of paper wastes are framed with blue cardboard and the edges of plastic wastes are framed with yellow cardboard.




Recycling Waste Bins



Recycling Cards



	<p style="text-align: right;">Task Cards</p>  <p>Robot Platform</p>
<p>PREPARATION OF THE ENVIRONMENT:</p>	<p>Conversation is made with the children about which waste is recyclable. It is discussed why this waste should be recycled and what effects it has on our nature and our world. Banners related to recycling are examined from the smart board. The materials to be used during the activity are brought to the environment. Waste pictures are put on the table in the box. The boards are hung where children can reach them.</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>The teacher brings the recycling waste bins that he/she hangs on the hook and loop board and guides the children to examine them. He/she then places the box with pictures of recyclable wastes in the middle. Children do the activity of collecting the waste pictures and throwing them into the relevant waste bin with their task cards. For example, the child who chooses the blue card takes the paper waste picture and throws it into the blue waste bin. The child choosing the green task card finds the glass waste picture and throws it into the green waste bin. The child who receives the yellow task card finds the plastic waste picture and throws it into the yellow waste bin. Other children give feedback on the correct completion of the task. For example, if there are no green waste pictures left and a child chooses a green task card, he/she examines the pictures and indicates that there is no task related to the card he/she chose.</p> <p>** (The pictures with the waste were previously pasted on the cardboard of the same color as the waste bin.)</p>



1.The child chooses the task card



2. He/she finds the pictures related to the card








3. He/she throws it into the relevant waste bin






After all the children have worked with the task cards, the robot platform is taken out and laid on the ground. There are color cards in a pouch. Each child chooses a card (green=glass blue=paper yellow=plastic) The child who chooses his/her card tells what his/her task is and goes to the robot. The task of the child who chooses the blue is to collect the paper waste and take it to the paper recycling waste bin. The task of the child who chooses the yellow card is to collect the plastic waste and take it to the plastic recycling waste bin. The child who chooses the green card is to take the glass garbage waste to the glass recycling waste bin. If the game is to be made a little more difficult according to the development level of the children, it can be played as follows; "Player child takes all 3 task cards. He/she codes the robot to find 3 related cards on the platform. For example, the child chooses yellow green and blue task cards. He/she codes the robot to collect one each of the plastic, glass and paper waste pictures on the robot platform. He/she throws the 3 waste pictures he/she collects into 3 separate boxes. All children are guided to use the robot by using the task cards.



	 
ROLES of the CHILDREN	Collecting the same type of wastes and throwing them into the relevant recycling waste bin. Children other than the player check whether the player collects all the wastes correctly. In the robotic part of the game, programming the robot to collect the same type of wastes and throw them into the relevant waste bin. They make suggestions to the player in the wrong situations.
ROLE of the TEACHER:	The teacher acts as a guide. He/she guides children through the matching game.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: During the game, the child is expected to self-evaluate whether the waste is in the right waste bin or not, whether the robot makes the right moves or not. The children evaluate the results together. Each child places their own smiling face on the evaluation board.
References, if any	





Shape Patterns - group without robot	
AGE RANGE	3-4
Activity for...	Group without robot
Author	Melda Ersoy, İdeal Çocuk Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Geometric shape pictures,  1 box  hook and loop board 






<p>PREPARATION OF THE ENVIRONMENT:</p>	<p>Hook and loop board and boxes with geometric shapes are placed in the classroom environment. Cards with geometric shapes are brought to the classroom environment and the transition is made to the introductory stage of the activity.</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>The teacher tells the children that they are going to play a game and the children are seated in a circle. Prepared cards with square, triangle, rectangle, ellipse, pentagon shapes are shown. While playing, a child becomes a tag and is given a card. The child starts walking outside the circle by saying the feature of the shape on this card, and the teacher plays music from behind. The child leaves the card behind a friend and starts chasing after the friend says a feature of that shape. After the game progresses in this way and all children become a tag, the next stage is started. A pattern on the floor is shown and a conversation is started by asking the children questions about this pattern. The teacher distributes the roles to the children and the next stage is started. After the roles are distributed, the speaker says a geometric shape pattern with rules of 2-1, 2-2 or 3-1( or ) and the other children try to create this pattern on the hook and loop board by acting according to their roles. The geometric shapes are in the box and the player finds the geometric shape related to the pattern from the box and places it on the hook and loop board. The roles keep changing until each child becomes the speaker once.</p> <div data-bbox="574 1265 1388 1377">  </div> <p>Children correctly place the shapes on the hook and loop board according to the given pattern example.</p>
<p>ROLES of the CHILDREN</p>	<p>Speaker: creates a pattern using the geometric shapes in the box. Player: finds the shapes of the pattern told by the child speaker from the box and places them on the hook and loop board. Coach: tells the player which geometric shapes to find and reminds the rule. Referee: goes to the board with the speaker and discusses the correctness of the pattern rule. Director: manages this process without confusion.</p>
<p>ROLE of the TEACHER:</p>	<p>The teacher plays a role in the children's fulfillment of their roles. He/she places media preparation and boards. In the introductory stage of the activity, he/she introduces the pattern models to the children and supports them in creating the pattern rules.</p>
<p>EXTRA</p>	



RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: Where do we encounter geometric shapes in daily life? Have you noticed an image/object/situation that we can call a pattern in your life? What can we explain in life with patterns? What difficulties did you have while fulfilling your role? What would you like to change at the activity?
References, if any	

Shape Patterns - group with robot	
AGE RANGE	3-4
Activity for...	Group with robot
Author	Melda Ersoy,İdeal Çocuk Kindergarten,Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Geometric shape pictures  <ul style="list-style-type: none"> 1 box  <ul style="list-style-type: none"> hook and loop board  <ul style="list-style-type: none"> board prepared for Robot Doc Robot Doc 
PREPARATION OF THE ENVIRONMENT:	Hook and loop board and boxes with geometric shapes are placed in the classroom environment. Cards with geometric shapes are brought to the classroom environment and the transition is made to the introductory stage of the activity.



<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>1st Stage The teacher tells the children that they are going to play a game and the children are seated in a circle. Prepared cards with square, triangle, rectangle, ellipse, pentagon shapes are shown. While playing, a child becomes a tag and is given a card. The child starts walking outside the circle by saying the feature of the shape on this card, and the teacher plays music from behind. The child leaves the card behind a friend and starts chasing after the friend says a feature of that shape. After the game progresses in this way and all children become a tag, the next stage is started. A pattern on the floor is shown and a conversation is started by asking the children questions about this pattern. The teacher distributes the roles to the children and the next stage is started. After the roles are distributed, the speaker says a geometric shape pattern with rules of 2-1, 2-2 or 3-1( or ) and the other children try to create this pattern on the hook and loop board by acting according to their roles. The geometric shapes are in the box and the player finds the geometric shape related to the pattern from the box and places it on the hook and loop board. The roles keep changing until each child becomes the speaker once.</p>  <p>Children create the pattern on the hook and loop board.</p> <p>2nd Stage Roles are distributed after Robot Doc and the board are laid on the ground. Relevant geometric shapes are placed on the board. The speaker tells a pattern according to the rules specified earlier. According to their roles, the children move the Robot Doc according to the rule of the pattern. On the hook and loop board, both the pattern he/she has told to the speaker and the pattern in which Robot Doc was coded are placed one under the other. Afterwards, a comparison and an evaluation are made between the two. In each round, the roles continue by changing and the activity ends at the end of the 5th Round.</p>
<p>ROLES of the CHILDREN</p>	<p>Speaker: creates a pattern using the geometric shapes in the box. Player: finds the shapes related to the pattern told by the speaker and codes the Robot Doc. Coach: places the pattern told by the speaker and the pattern in which Robot Doc is coded on the board. Referee: together with the announcer, checks that the Robot Doc is coded correctly. Director: manages this process without confusion.</p>
<p>ROLE of the TEACHER:</p>	<p>The teacher plays a role in the children's fulfillment of their roles. He/she places media preparation and boards. In the introductory stage of the activity, he/she introduces the pattern models to the children and supports them in creating the pattern rules.</p>
<p>EXTRA RESOURCES</p>	



Other remarks / Hints for the implementation	EVALUATION: Where do we encounter geometric shapes in daily life? Have you noticed an image/object/situation that we can call a pattern in your life? What can we explain in life with patterns? What difficulties did you have while fulfilling your role? What would you like to change at the activity?
References, if any	

Write your name by using magnets - group with robot	
AGE RANGE	4
Activity for...	Group of 5-6 children with educational robotics
Author	
DURATION / TIMING:	Three weekly sessions along a month: - Presentation of the concept of magnet and its properties. - Sharing previous knowledges (guided by teacher) - Creation of corners where children can experiment with the learned properties
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Magnets • cartons • clips • pencils • glue • scissors • paper folders • paintings • eraser • sharpener • Robot
PREPARATION OF THE ENVIRONMENT:	Before starting the activity you can dedicate a few minutes either for improving conscious breathing with children or for watching short stories related to cooperation, and team working. Starting calmly favours a security classroom environment that facilitates active participation. https://www.youtube.com/watch?v=U2U6WfBovAE https://www.youtube.com/watch?v=gQiaAb6VGt8 https://www.youtube.com/watch?v=lxHwyz3pmGI https://www.youtube.com/watch?v=hP0YE76e5Ks
DETAILED DESCRIPTION: How the activity is implemented?	Start the activity describing a motivational situation, such as: Presentation of the concept of magnet and its properties. We will begin with the story of <i>The mystery of the Magnesian shepherds</i> English: https://www.youtube.com/watch?v=CqIFvFNe1Nk https://www.youtube.com/watch?v=yZrdkZVbzOk Spanish: https://www.youtube.com/watch?v=8g718fepBIQ We can also represent the story with magnetized objects. Other activities: paint the characters (shepherd Magnet...) -Searching pupils previous knowledge (guided by the teacher) Material organized on 4 corners where children can touch, observe and experiment: Corner 1) Objects that can be attracted and that are not attracted



	<p>to the magnet. Provide some magnets and different metallic and non-metallic objects. Corner 2) The force of the attraction of the magnet... Provide for example some bottles or packaging (use recycled materials), some with a screw inside and some empty Paper folder with clip underneath and without clip. If needed, teacher can encourage the observing and discovering process asking some general questions: "What happens? Can you find some difference?" Corner 3) Attraction distance of two magnets Hang up two-three magnets at different distances but accessible to the children height. Corner 4) Games with magnets Car race with magnets: each car carries a magnet and with another magnet children will make them move (concept: force of repulsion). Fishing game: the fish or sea stars carrying a piece of iron and the fishing rod carries a magnet. (force of attraction) Once all children have had the chance of getting familiar with the materials they will use, and their characteristics, they can share their observations. After having experience with the magnets and sharing ideas in the assembly, pupils <u>individually</u> start to design their name (they can draw on a paper, or make a prototype with clips). Then using a magnet each child will "write" his or her name moving the chosen material with a magnet. Once the activity is finished, dedicate some moment to analyze, together with the pupils so they can explain themselves about the work done, how much they enjoyed it, if they learnt, what they liked the most, what was the hardest...</p>
ROLES of the CHILDREN	<p>IF CHILDREN HAVE NEVER USED A ROBOT BEFORE, we recommend you to start with some unplugged practice, so they can start to understand either the robot mechanism and to assume an specific role within the group, for example: After presenting the initial motivating situation, in case pupils have never use a robot, teacher will introduce robots to the pupils: what is a robot? What a robot is for? Once the robot has been introduced, we can start to program it. For starting to learn how to program a robot, we, initially, do not need any device, nor even a robot; our own body is enough for the very first approach. So we organize a group of 4-5 pupils and give each of them a role: Programmer: it is the person in charge of choosing the path and click on the bottoms to make the robot execute it by using the different commands: A touch on the back means one step forward A touch on the right shoulder means turn to the right side without scrolling. A touch on the left shoulder means turn to left side, without scrolling A touch on the head means start moving under the received commands Robot: the pupil that follows the programmer instructions Supervisors: they are in charge of representing with arrows each</p>



	<p>of the steps the robot make on the floor or pavement of the classroom.</p> <p>Once pupils have got familiar to the commands, allow them to use the robot and to play with it, clicking different commands to understand the way it works.</p> <p>IF PUPILS ALREADY KNOW HOW A ROBOT RUNS, organize groups with 4-5 members each and follow the detailed description of the activity, considering they will always work as a group and not individually.</p> <p>Give each of them a role related to the use of the robot and establish clear and shared rules. Possible roles:</p> <ul style="list-style-type: none"> • Programmer: decide the sequence of commands and communicate with the one with Executer role. • Controller: observes what the programmer says and writes/draws the sequence of commands. He/she can give some suggestions. • Executer: clicks the button following the commands given by the programmer • Coordinator: vigilant of the order and respect of the turns • Spokesperson: the pupil that relates/reports/talks/ explains all the process to the plenary group.
ROLE of the TEACHER:	<ul style="list-style-type: none"> • He/she has all the necessary materials prepared and accessible for pupils. • Introduces the initial motivated situation to children and allow them to play and explore. • Supports the observation and encourages children to solve the challenge, either by introducing questions or by offering them materials or other. • Observes the process and is available to support if the child needs • Shows an open and positive attitude towards the demands and needs of the children valuing what they are doing, showing interest in what they do • Presents and facilitates the development of activities in a joyful way • Facilitates the collection and cleaning of materials and spaces • Guide the discussion about experiences
Extra resources	
Other remarks / Hints for the implementation	<p>ASSESSMENT:</p> <ul style="list-style-type: none"> • For teachers <p>Answer the following questions: Previously to the activity: What you initially plan pupils to learn. What you think pupils will learn. Afterwards: What pupils have really learnt</p> <ul style="list-style-type: none"> • For pupils: <ul style="list-style-type: none"> - Self-assessment (pupils express whether they liked it or not, how much they enjoyed themselves, they can identify how they feel with an emoticon) - Generalized evaluation: pupils are able to place the magnet in a metallic place either in the classroom or at home - Communicate what has been learned to another group of pupils in the school.
References, if any	Adapted from Erasmus+ Botstem project: <i>Robotics and STEM</i>



Story of a snail - group without robot

AGE RANGE	3/4
Activity for...	Group without educational robotics
Author	Agnese Tombesi - Renata Dal Monte
DURATION / TIMING:	reading activity 10 minutes activity: as long as the children need
REQUIRED MATERIALS:	<ul style="list-style-type: none"> a little story a platform made with tape or circles
PREPARATION OF THE ENVIRONMENT:	<p>Story: children can sit on the ground while the teacher's reading the story (attached below)</p> <p>Activity (game): the teacher prepare board on the floor of the class with tape or hula-hops on which he/she puts images of insect (connected to the story) a starting point and obstacles.</p> <div data-bbox="523 882 1430 1610"> </div> <p>Cards to guess the animal (attached): the child pick the card and see only the card on the right, which contains clues about the animal to guess: number of paws, if flies or walk, etc. the picture on the left is the solution to the riddle.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>Phase 1: The children have to listen to the story.</p> <p>Phase 2: Game: one child picks up a card (attached) and he/she has to</p>



	<p>guess the animal of the tale by “reading” some clues graphically represented (cards on the right). When he/she knows the animal he/she has to say its name, then he/she goes on the “start” point on the board drawn on the floor. The child is blindfolded and has to move towards the animal guided by his/her friends.</p> <p>At the beginning of the game the teacher chooses a girl and a boy; the girl will say “left” when the child who’s playing has to turn left and the boy says “right” when the child has to turn right. All the other friends can say “forward” or “backward”. At the end of the game, the child can turn over the card and check his/her answer.</p>
ROLES of the CHILDREN	<p>The children have to listen to the story all together.</p> <p>Activity:</p> <p>one child has to play on the platform by choosing a card, guessing the animal and doing the path guided by his/her friends. One child has to check the answer by turning the card over.</p> <p>One girl has to say “left”</p> <p>One boy has to say “right”</p> <p>The group has to say “forward” or “backward”</p>
ROLE of the TEACHER:	<p>The teacher reads the story and explains the game.</p>
Extra resources	<p>STORY OF A SNAIL</p> <p>Once upon a time there was a beautiful vegetable – garden. It was summer.</p> <p>A little snail lived there.</p> <p>The little snail found a beautiful lettuce leaf to eat but the lettuce disappeared!</p> <p>The little snail looked for another one.</p> <p>The little snail found another big lettuce leaf...but, few days later, it disappeared as well!</p> <p>The little snail looked for another one.</p> <p>“Uh! There it is...but there’s a caterpillar under it!” Said the little snail.</p> <p>“Can I eat a little piece of this nice leaf?” Asked the little snail.</p> <p>“No! It’s mine!” Answered the caterpillar.</p> <p>“But...it is so big!” Said the little snail...</p> <p>“I said no!”</p> <p>They started arguing.</p> <p>All the animals wanted to see and listen to them!</p> <p>There were bees, dragonflies, ants, ladybugs, crickets, lizards, birds, spiders and even mosquitos!</p> <p>Dragonflies and birds stopped flying around just to listen to them.</p> <p>Ladybugs were on a branch and were listening to them.</p> <p>Spiders didn’t want to listen to that noisy conversation so they decided to make a spiderweb just to cover their mouth!</p> <p>Mosquitos and lizards were too lazy and they didn’t care about the problem. Everyone works and cooperates” said a bee</p> <p>“Everyone picks up a seed or a crumb so everyone has something to eat!” said an ant.</p> <p>One of the crickets started speaking... “Dear friends, we all live in this vegetable garden and we all have to share the good things that are here! It is nice to eat together and rest together under the same leaf. You can also help your friend, you can have a nice chat or you can make funny jokes!”</p>







The little snail looked at the caterpillar.
 The caterpillar looked at the little snail.
 They smiled each other and from that moment on they knew that
 eating or resting together was nicer then doing it on their own!

CARDS:

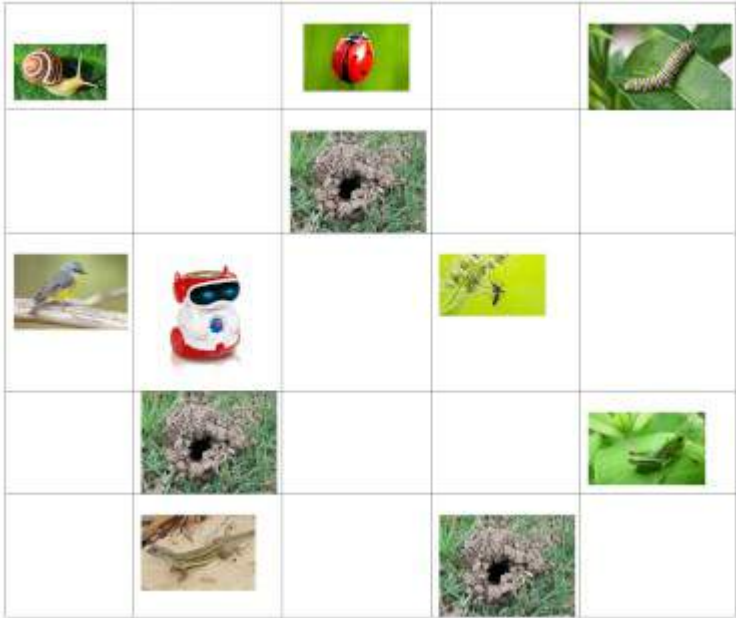




	 
	 
Other remarks / Hints for the implementation	
References, if any	

Story of a snail - group with robot	
AGE RANGE	3/4
Activity for...	Single child with educational robotics
Author	Agnese Tombesi - Renata Dal Monte
DURATION / TIMING:	reading activity 10 minutes; activity with the robot: as long as the child needs
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • A short story • Educational robot Clementoni (Doc, SuperDoc, Mind Designer) • Cards to guess the animal (attached): the child pick the card and see only the card on the right, which contains clues about the animal to guess: number of paws, if flies or walk, etc. the picture on the left is the solution to the riddle. • A board for playing with the robot



	
PREPARATION OF THE ENVIRONMENT:	<p>Story: children can sit on the ground while the teacher's reading the story.</p> <p>Activity (game): the child can lay on the floor and play with the robot</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>The child has to listen to the story and then he/she has to play with the robot.</p> <p>Game: the child picks up a card (attached) and he/she has to guess the animal of the tale by "reading" some clues graphically represented (cards on the right). When he/she knows the animal he/she has to say its name and then program the robot to reach it on the board. The child has to pay attention because the robot can't go on the boxes with the "hole"; if the robot "falls" into the hole, the child has to start again from the beginning.</p> <p>At the end of the game, the child can turn over the card and check if the animal is the right one.</p>
ROLES of the CHILDREN	<p>He/she has to listen to the story and work on his own; he can't communicate with other pupils.</p> <p>The child has to program the robot and follow the rules of the game.</p>
ROLE of the TEACHER:	<p>The teacher reads the story and explains the game.</p>
Extra resources	<p>STORY OF A SNAIL</p> <p>Once upon a time there was a beautiful vegetable - garden. It was summer.</p> <p>A little snail lived there.</p> <p>The little snail found a beautiful lettuce leaf to eat but the lettuce disappeared!</p> <p>The little snail looked for another one.</p> <p>The little snail found another big lettuce leaf...but, few days later, it disappeared as well!</p> <p>The little snail looked for another one.</p> <p>"Uh! There it is...but there's a caterpillar under it!" Said the little snail.</p> <p>"Can I eat a little piece of this nice leaf?" Asked the little snail.</p> <p>"No! It's mine!" Answered the caterpillar.</p>


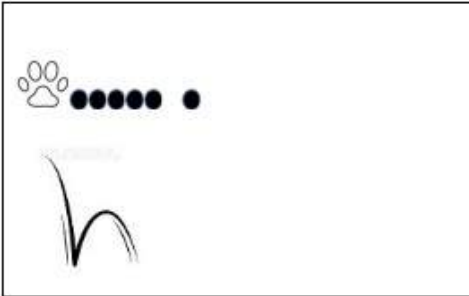



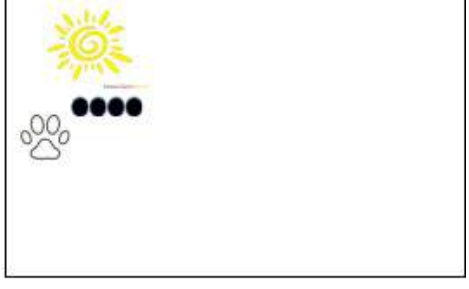

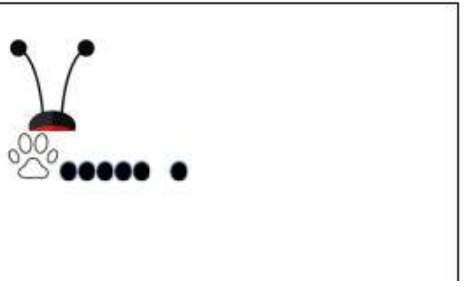


"But...it is so big!" Said the little snail...
 "I said no!"
 They started arguing.
 All the animals wanted to see and listen to them!
 There were bees, dragonflies, ants, ladybugs, crickets, lizards, birds, spiders and even mosquitos!
 Dragonflies and birds stopped flying around just to listen to them.
 Ladybugs were on a branch and were listening to them.
 Spiders didn't want to listen to that noisy conversation so they decided to make a spiderweb just to cover their mouth!
 Mosquitos and lizards were too lazy and they didn't care about the problem. Everyone works and cooperates" said a bee
 "Everyone picks up a seed or a crumb so everyone has something to eat!" said an ant.
 One of the crickets started speaking... "Dear friends, we all live in this vegetable garden and we all have to share the good things that are here! It is nice to eat together and rest together under the same leaf. You can also help your friend, you can have a nice chat or you can make funny jokes!"
 The little snail looked at the caterpillar.
 The caterpillar looked at the little snail.
 They smiled each other and from that moment on they knew that eating or resting together was nicer then doing it on their own!

CARDS:





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<p>Other remarks / Hints for the implementation</p>	
<p>References, if any</p>	



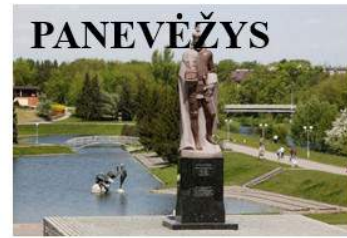
PEARL activities for children aged from 5 to 6 year old



The aim of the educational activities with the 5-6 years old children is to promote the development of educational emotions and of an empathetic learning environment supported by the use of a robot as an engaging tool that accelerates the educational processes and that influences communication and inclusion. From the didactical point of view the activity will also permit to introduce the basis of computational thinking and coding. The educational activities can be challenging for the pupils so it will be possible to observe the reactions (positive and negative) to frustration, the rising of educational emotions and how they influence the communication and inclusion. The robot used in a small group with certain activities facilitates the development of educational emotions and fosters a proximal learning environment.

A trip to the capital - group without robot	
AGE RANGE	5-6 y.o.
Activity for...	Group without robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	25-35 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Cards with city names, • cards with photos of cities, • arrows, • map, • map layout.
PREPARATION OF THE ENVIRONMENT:	<p>Cards made with photos and names of cities, names, names of cities.</p> <p>The names of the cities we pass on the way to the capital.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>First of all the discussion with children about trips in Lithuania is done. It is clarified whether children know what the capital of Lithuania is or whether they have been there. The map of Lithuania is analyzed, it is investigated how to get to the capital, through which cities and towns you have to pass. During the introduction videos or photos about famous, places of interest in the capital city are presented and discussed.</p> <p>Cards with the names of the cities and their photos are presented: VILNIUS, PANEVĖŽYS, RAMYGALA, UKMERGĖ, ŠIRVINTOS, photos of the most famous objects of the capital. Map of Lithuania, layout of the map of Lithuania. Drawing tools.</p> <p>Finds out with the teacher that he will "travel" to the capital - Vilnius. Will start the trip from Panevėžys. The children discuss who will start the journey first, mark the place in the Lithuanian layout from where they will start, stick a map of Panevėžys city, another child continues, looks at the map through which the next city "will go", marks the way with a drawing tool in the layout (draws a line, dotted ...), sticks a map of the city he came to, names the city, the next child "travels". "Arriving" to Vilnius, glues known objects, describes them.</p> <p>After the activity, it is discussed how the children felt while</p>



playing, how they managed to cooperate, share work, solve problems.



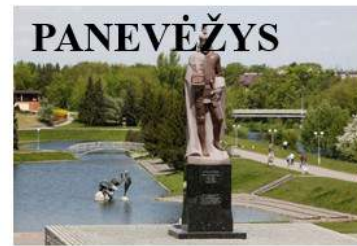
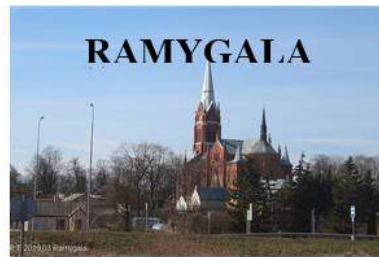
	 
ROLES of the CHILDREN	Negotiates the actions in the game. It is your turn to take action. Solves problems. Collaborates to achieve a goal. Gives help to a friend
ROLE of the TEACHER:	The teacher talks to the children about the Lithuanian capital, objects to visit, discusses them, finds out what they are called, researches the map, the road to the capital. Introduces city names, photo cards. Explains the task, rules of activity, Monitors children's activities when children encounter an obstacle, fails to solve a problem, helps, explains together with children where the error occurred.
Extra resources	
Other remarks / Hints for the implementation	Other countries can choose their capital and with children "Travel" from your hometown to the capital. Objects that are important to visit in the capital are chosen at their discretion. When "traveling" to the Lithuanian capital, you can choose other cities or towns
References, if any	








A trip to the capital - group with robot

AGE RANGE	5-6 y.o.
Activity for...	Group with robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	25-35 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and board, • cards with city names, • cards with photos of cities, • arrows, • map, • map layout.
PREPARATION OF THE ENVIRONMENT:	<p>Cards made with photos and names of cities, names, names of cities.</p> <p>Made a mat consisting of 20 squares (each of them is 15x15 cm). The names of the cities we pass on the way to the capital, pictures of the main objects of the capital (Gediminas Castle, TV tower, presidency) are placed in the boxes of the mat.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>First of all the discussion with children about trips in Lithuania is done. It is clarified whether children know what the capital of Lithuania is or whether they have been there. The map of Lithuania is analyzed, it is investigated how to get to the capital, through which cities and towns you have to pass. During the introduction videos or photos about famous, places of interest in the capital city are presented and discussed.</p> <p>Cards with photos and names of cities, arrows, carpet with city cards, attractions of the capital, gas station card are provided. Finds out with the teacher that he will "travel" to the capital - Vilnius. Will start the trip from Panevėžys.</p> <p>Agrees which child will lay out the sequence of cards as "going" to the capital (before programming the robot). First put the Panevėžys city card, then the arrow, put the next city .. (e.g.: Panevėžys Ramygala ...). Other children help lay out, look at the map, say what city to put. Checks to be it correct. Find out who will program the robot. Travel from Panevėžys city, towards Vilnius. Traveling through each city is programmed by a different child. If you stand on the "gas station" field, allow another child to finish the planned trip. After going to the capital, the child chooses which object to "visit", i. it is named and programmed by the robot towards the object. The next object is "visited" - programmed by a robot, another child.</p> <p>After the activity, it is discussed how the children felt while playing, how they managed to cooperate, share work, solve problems.</p>





An example of the mat

			ŠIRVINTOS	
	VILNIUS			UKMERGĖ
				
	PANEVĖŽYS			RAMYGALA



ROLES of the CHILDREN	Negotiates the actions in the game. It is your turn to take action. Solves problems. Collaborates to achieve a goal. Gives help to a friend
ROLE of the TEACHER:	The teacher talks to the children about the Lithuanian capital, objects to visit, discusses them, finds out what they are called, researches the map, the road to the capital. Introduces city names, photo cards. Explains the task, rules of activity, Monitors children's activities when children encounter an obstacle, fails to solve a problem, helps, explains together with children where the error occurred.
Extra resources	
Other remarks / Hints for the implementation	Other countries can choose their capital and with children "Travel" from your hometown to the capital. Objects that are important to visit in the capital are chosen at their discretion. When "travelling" to the Lithuanian capital, you can choose other cities or towns
References, if any	

Name the tree - group without robot	
AGE RANGE	5-6 y. o.
Activity for...	Group without robot
Author	Panevezio r. Naujamiescio kindergarten "Bitute", Lithuania
DURATION / TIMING:	35-40 min.
REQUIRED MATERIALS:	Dice, cards with pictures of trees, leaves and fruits.
PREPARATION OF THE ENVIRONMENT:	<ul style="list-style-type: none"> • Cards with pictures of trees, leaves and fruits 2 pcs. • Dice with images of trees.
DETAILED DESCRIPTION: How the activity is implemented?	<p>Children look at the cards with pictures of trees, their leaves and fruits. Name what these trees are.</p> <p>The teacher suggests that the children roll the dice and what tree fell out to find its leaves and fruit. Arrange the cards: add their fruits and leaves to the trees. Tell us: What makes their fruit fun? What are these leaves and so on? If "smile" falls while rolling the dice, you must smile at your friend.</p> <p>The kids have to agree on who will start first.</p>
ROLES of the CHILDREN	Negotiates the actions to be taken in the game. It is your turn to take action. Solves problems. Collaborate to achieve a goal.
ROLE of the TEACHER:	The teacher introduces the name of the tree, its fruits and leaves, asks questions, and explains the game's rules. Monitors children's activities, when children encounter an obstacle, fails to solve a problem, helps, explains together with children where the error occurred.




















Extra resources	
Other remarks / Hints for the implementation	This activity can also be performed under other trees.
References, if any	

Name the tree - group with robot	
AGE RANGE	5-6 y. o.
Activity for...	Group with robot
Author	Panevezio r. Naujamiescio kindergarten "Bitute", Lithuania
DURATION / TIMING:	35-40 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and board, • dice, • cards with pictures of trees, leaves and fruits.
PREPARATION OF THE ENVIRONMENT:	Made a mat consisting of 20 boxes. Cards with pictures of trees, leaves and fruits 2 pcs. Dice with images of trees. Cards can be placed on the mat in random order.
DETAILED DESCRIPTION: How the activity is implemented?	<p>The teacher suggests that the children find the leaves and fruits of the trees using a robot. Throw a dice and what tree has fallen, program the robot to go to that tree, then to the tree's leaf, and then to the fruit. The first child starts from the START. Children must name the tree and its fruit.</p> <p>The following child programs the robot from where it stands, throws a mask, and programs the robot to the tree, then to the leaf and fruit.</p> <p>If the „smile“ rolls out, the kid must smile at the friend and skip the walk.</p> <p>After the activity, it is discussed how the children felt while playing, how they managed to cooperate, solve problems.</p>
ROLES of the CHILDREN	<p>Negotiates the actions to be taken in the game.</p> <p>It is your turn to take action.</p> <p>Solves problems.</p> <p>Collaborate to achieve a goal.</p>
ROLE of the TEACHER:	The teacher introduces the name of the tree, its fruits and leaves, asks questions, and explains the game's rules. Monitors children's activities, when children encounter an obstacle, fails to solve a problem, helps, explains together with children where the error occurred.
Extra resources	
Other remarks / Hints for the implementation	This activity can also be performed under other trees.
References, if any	



Occupations - group without robot

AGE RANGE	5-6 y. o.						
Activity for...	Group without robot						
Author	Panevezio r. Naujamiescio kindergarten “Bitute”, Lithuania						
DURATION / TIMING:	25-35 min.						
REQUIRED MATERIALS:	<ul style="list-style-type: none">• Cards with five occupation names: hairdresser, builder, teacher, holiday organizer, doctor,• cards with pictures of items suitable for each profession,• two cards from non-listed professions,• start card,• self-assessment cards.						
PREPARATION OF THE ENVIRONMENT:	Made card titles with the following professions: with a hairdresser, a builder, a teacher, a holiday organizer, a doctor. Made 3 cards for each profession with pictures, two cards with pictures not suitable for any profession for example: police, driver. The boxes in the rug contain images that correspond to the profession.						
DETAILED DESCRIPTION: How the activity is implemented?	<p>Various occupations are discussed with children. It is clarified whether children know what items are needed, tools for different occupations.</p> <p>Cards with the names of professions are provided: HAIRDRESSER, BUILDER, TEACHER, HOLIDAY ORGANIZER, DOCTOR and cards with items, tools that are necessary for each occupation. It is explained that each child will pull out a card with a name. Agree who will draw the card first, who will draw the second ... After pulling out the card, he recalculates the name of the occupation profession himself. If he cannot read yet, he/she asks a friend for help, or the teacher helps to read. Names the job, tells what makes it unique, looks for cards suitable for the drawn profession describes their purpose. Then the cards are dealt, the other child speaks ... All five children put the cards together.</p> <table><tr><td>Doctor</td><td>Builder</td><td>Hairdresser</td></tr><tr><td>Holiday organizer</td><td>Teacher</td><td></td></tr></table> <div></div>	Doctor	Builder	Hairdresser	Holiday organizer	Teacher	
Doctor	Builder	Hairdresser					
Holiday organizer	Teacher						

	          
ROLES of the CHILDREN	<p>Negotiates the actions to be taken in the game.</p> <p>Takes the turn to act.</p> <p>Solves problems.</p> <p>Collaborates to achieve a goal.</p> <p>Gives help to a friend.</p>
ROLE of the TEACHER:	<p>The teacher talks to the children about different professions.</p> <p>Introduces the names of professions, items specific to different professions. Explains the task, operating rules. Monitors children's activities, helps to read the names of professions. When children encounter an obstacle, fail to solve the problem, helps, finds out with the children where the error occurred.</p>
Extra resources	
Other remarks / Hints for the implementation	<p>Types of occupations can be selected. Any number of cards suitable for describing the occupations can also be chosen individually.</p>
References, if any	



Occupations - group with robot	
AGE RANGE	5-6 y. o.
Activity for...	Group with robot
Author	Panevezio r. Naujamiescio kindergarten "Bitute", Lithuania
DURATION / TIMING:	25-35 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and board, • cards with five occupation names: hairdresser, builder, teacher, holiday organizer, doctor, • cards with pictures of items suitable for each profession, • two cards from non-listed professions, • start card, • self-assessment cards
PREPARATION OF THE ENVIRONMENT:	Made card titles with the following professions: with a hairdresser, a builder, a teacher, a holiday organizer, a doctor. Made 3 cards for each profession with pictures, two cards with pictures not suitable for any profession for example: police, driver. A mat consisting of 20 squares (each 15x15 cm). The boxes in the rug contain images that correspond to the profession.
DETAILED DESCRIPTION: How the activity is implemented?	<p>There are cards with the names of the professions, a carpet with pictures corresponding to the occupations, two cards that are not suitable for any job, a "Start" card.</p> <p>Agree which child will start first. After pulling out the card, he recalculates the name of the profession himself. If he cannot read, he asks a friend for help, or the teacher helps to read. He puts the robot on the start card, programs it, "collects" the pictures suitable for the robot pulled out by the robot, stands on each suitable one, and explains what the object is for and what function it performs. After collecting all the pictures, passing them on to another child, he "collects" cards suitable for his drawn profession ...</p> <p>A child who stands on a card that is not suitable for any profession (policeman, cashier), thinks about which job it is intended for, names the job.</p> <p>After the activity, it is discussed how the children felt while playing, how they managed to cooperate, share work, solve problems. Kids self-assess with Smiley Cards.</p>





















Doctor	Builder	Hairdresser
Holiday organizer	Teacher	



Start



	    
	   
	   
	    
ROLES of the CHILDREN	<p>Negotiates the actions to be taken in the game.</p> <p>Takes the turn to act.</p> <p>Solves problems.</p> <p>Collaborates to achieve a goal.</p> <p>Gives help to a friend.</p>
ROLE of the TEACHER:	<p>The teacher talks to the children about different professions. Introduces the names of professions, items specific to different professions. Explains the task, operating rules. Monitors children's activities, helps to read the names of professions. When children encounter an obstacle, fail to solve the problem, helps, finds out with the children where the error occurred.</p>
Extra resources	
Other remarks / Hints for the implementation	<p>Types of occupations can be selected. Any number of cards suitable for describing the occupations can also be chosen individually.</p>
References, if any	

Uppercase and lowercase letters - group without robot

AGE RANGE	5-6 y.o.
Activity for...	Group without robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	25-35 min.
REQUIRED	<ul style="list-style-type: none"> Question mark card,



MATERIALS:	<ul style="list-style-type: none"> • blue, blue, pink, light pink cards with uppercase, lowercase letters, • cards with words.
PREPARATION OF THE ENVIRONMENT:	<p>Cards made in capital letters for the word „THANK YOU“ - blue, in lowercase letters for the word „thank you“ - light blue; „HELLO“ - pink, „hello“-light pink.</p> <p>Each letter is on a different card.</p> <p>Help cards with the words „THANK YOU“, „HELLO“</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>Starting with discussion about polite words, the children will clarify how to greet, for example: what they say to friends, adults, when they come to kindergarten, when they meet a person on the street - HELLO.</p> <p>Children say what words express, thank you, what they say when they want to thank - THANK YOU. Express your thoughts when you use this word.</p> <p>Children are invited to view cards with uppercase and lowercase letters, cards with the words THANK YOU, HELLO.</p> <p>Explains with the teacher how these cards are similar, what is different, compares them, tries to link them by letters. Together with friends, find out that the blue and light - blue cards have the same letters, and the pink and light pink ones have the same letters.</p> <p>There are two sets of letters, help cards with the necessary words.</p> <p>With the help of the teacher, find out what words will be formed, uppercase and lowercase - THANK YOU, thank you, HELLO, hello.</p> <p>It is suggested to put these words together using cards. The kids discuss who will start first. Discusses what letter the word begins with, what the second letter is, the third ... After putting the word in capital letters, it checks whether the word is correct by opening a card with the word. Continue putting the same word in lowercase.</p> <p>After the activity, it is discussed how the children felt while playing, how they managed to cooperate, share work, solve problems.</p> <div data-bbox="557 1352 954 1653" data-label="Image"> <p>The image shows two sets of letter cards on a light brown background. The left set is for the word 'LABAS' and consists of four rows: the first row has a single blue card with 'L'; the second row has four blue cards with 'L', 'A', 'B', 'A', 'S'; the third row has a single light blue card with 'l'; and the fourth row has five light blue cards with 'l', 'a', 'b', 'a', 's'. The right set is for the word 'AČIŪ' and also consists of four rows: the first row has a single pink card with 'A'; the second row has four pink cards with 'A', 'Č', 'I', 'Ū'; the third row has a single light pink card with 'a'; and the fourth row has five light pink cards with 'a', 'č', 'i', 'ū'.</p> </div> <div data-bbox="523 1697 960 1953" data-label="Image"> <p>The image shows two more sets of letter cards on a light brown background. The left set is for the word 'AČIŪ' and consists of four rows: the first row has a single pink card with 'A'; the second row has four pink cards with 'A', 'Č', 'I', 'Ū'; the third row has a single light pink card with 'a'; and the fourth row has five light pink cards with 'a', 'č', 'i', 'ū'. The right set is for the word 'LABAS' and consists of four rows: the first row has a single blue card with 'L'; the second row has four blue cards with 'L', 'A', 'B', 'A', 'S'; the third row has a single light blue card with 'l'; and the fourth row has five light blue cards with 'l', 'a', 'b', 'a', 's'.</p> </div>



ROLES of the CHILDREN	Negotiates the actions in the game. It is your turn to take action. Solves problems. Collaborates to achieve a goal. Gives help to a friend
ROLE of the TEACHER:	The teacher talks to the children about polite behavior, words that mean politeness. Discusses situations. Introduces cards. Explains the task, rules of activity, Monitors children's activities when children encounter an obstacle, or fail to solve a problem, helps, explains together with children where the error occurred.
Extra resources	
Other remarks / Hints for the implementation	The colors on which the letters will appear can be chosen by the teacher independently. It is important that the upper and lower case cards have similar shades to make it easier for children to
References, if any	

Uppercase and lowercase letters - group with robot

AGE RANGE	5-6 y.o.
Activity for...	Group with robot
Author	Panevezio r. Dembavos kindergarten "Smalsutis", Lithuania
DURATION / TIMING:	25-35 min.
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Robot and mat, • question mark card, • blue, blue, pink, light pink cards with uppercase, lowercase letters, • cards with words.
PREPARATION OF THE ENVIRONMENT:	<p>Cards made in capital letters for the word „THANK YOU“ - blue, in lowercase letters for the word „thank you“ - light blue; „HELLO“ - pink, „hello“-light pink.</p> <p>Each letter is on a different card.</p> <p>Help cards with the words „THANK YOU“, „HELLO“</p> <p>Made a mat consisting of 20 squares (each of them is 15x15 cm). Individual lowercase letter cards (e.g. a č i ū, l a b a s) are distributed randomly on the mat including question card, start card.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>Starting with discussion about polite words, the children will clarify how to greet, for example: what they say to friends, adults, when they come to kindergarten, when they meet a person on the street - HELLO.</p> <p>Children say what words express, thank you, what they say when they want to thank - THANK YOU. Express your thoughts when you use this word.</p> <p>Children are invited to view cards with uppercase and lowercase letters, cards with the words THANK YOU, HELLO.</p> <p>Explains with the teacher how these cards are similar, what is different, compares them, tries to link them by letters. Together with friends, find out that the blue and light - blue cards have the same letters, and the pink and light pink ones have the same</p>



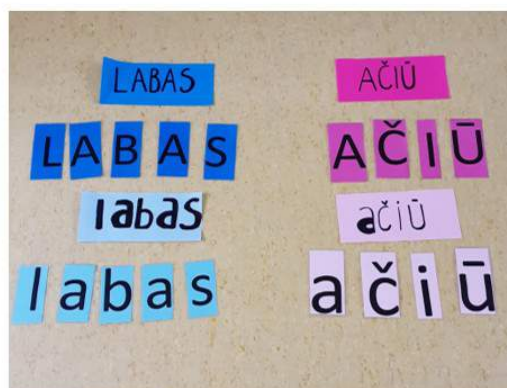
letters.

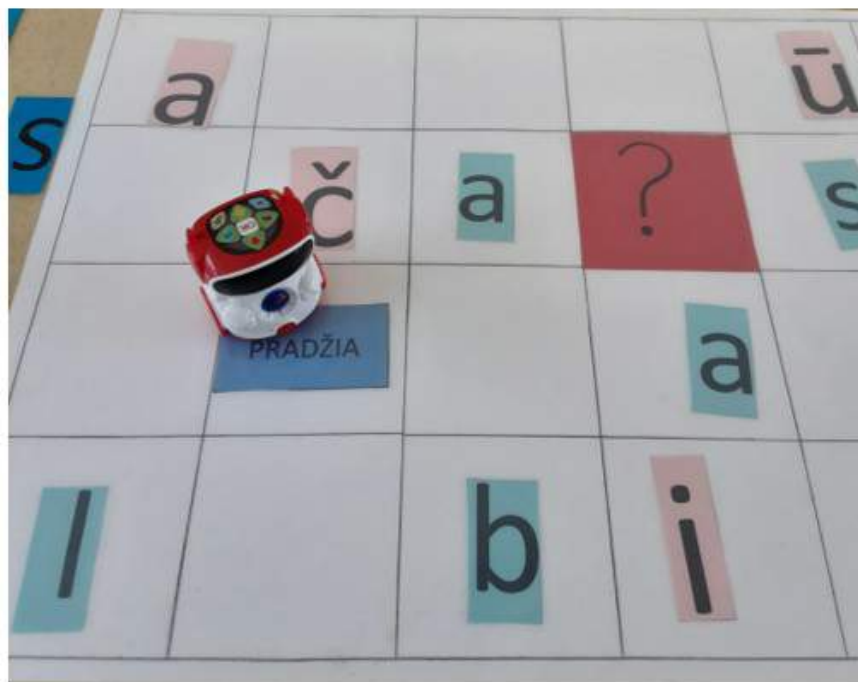
Children look at the tools provided: two sets of uppercase letters, a mat with lowercase letters, a question mark card, a start card. The children discuss who will be the first to lay out the cards, who will program the robot to check that the word is spelled correctly, advise each other, help.

It is suggested that the children first capitalize the word, check it by opening the help card, and then place the word in lower case on the mat with the help of a robot. The robot starts programming from the start of the card that is placed at any takeoff point.

Putting the word together with the help of a robot. The next word is laid out - without the robot in uppercase, with the robot in lowercase. When the robot stands on a card with a question mark, the child who is programming the robot tells the situation, for example, when he uses the word thank you, or thanks a friend for something.

After the activity, it is discussed how the children felt while playing, how they managed to cooperate, share work, solve problems.

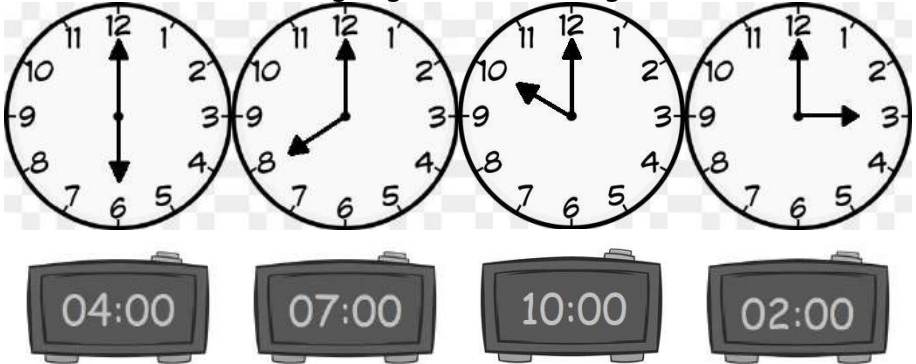

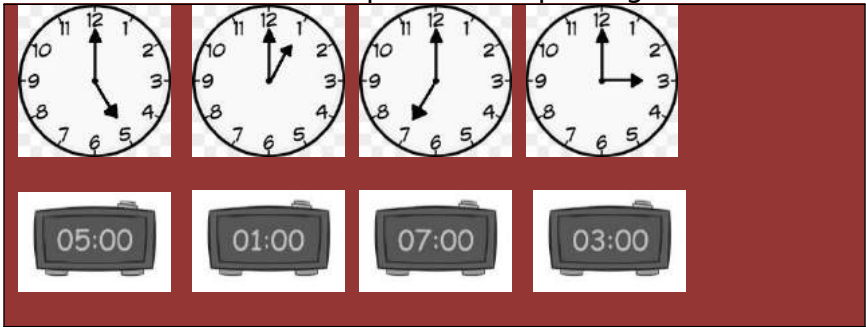





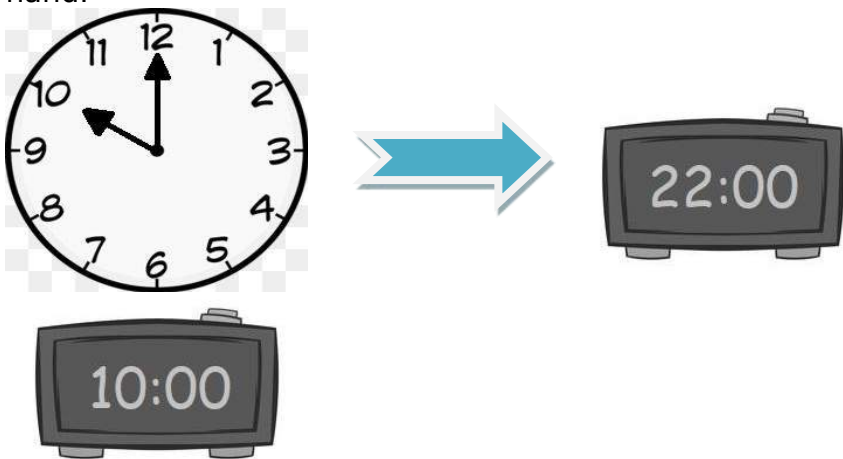
ROLES of the CHILDREN	Negotiates the actions in the game. It is your turn to take action. Solves problems. Collaborates to achieve a goal. Gives help to a friend
ROLE of the TEACHER:	The teacher talks to the children about polite behavior, words that mean politeness. Discusses situations. Introduces cards. Explains the task, rules of activity, Monitors children's activities when children encounter an obstacle, or fail to solve a problem, helps, explains together with children where the error occurred.
Extra resources	
Other remarks / Hints for the implementation	The colors on which the letters will appear can be chosen by the teacher independently. It is important that the upper and lower case cards have similar shades to make it easier for children to
References, if any	



Clock Clock! - group without robot

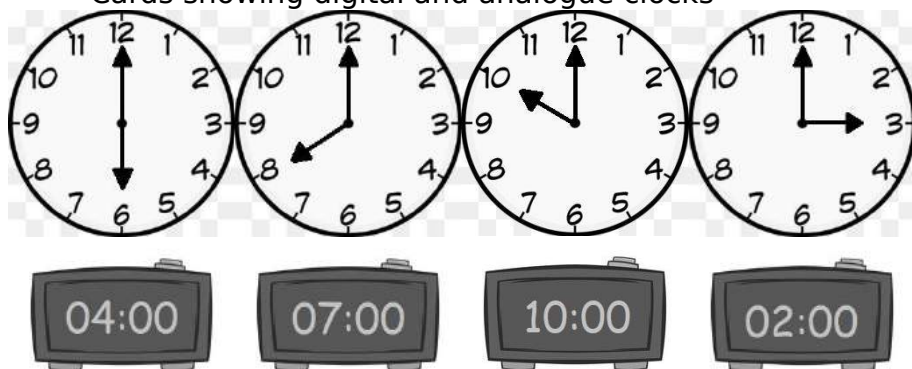




























AGE RANGE	5-6
Activity for...	Group without robot
Author	Aysu Öztaş, İdeal Çocuk Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Cards showing digital and analogue clocks  <ul style="list-style-type: none"> A mat of sufficient size for the cards to be placed on it  <ul style="list-style-type: none"> A hook and loop board for placing cards  <ul style="list-style-type: none"> Necklaces prepared to distribute roles to children 
PREPARATION OF THE ENVIRONMENT:	Teacher prepares digital and analogue clocks cards.
DETAILED DESCRIPTION: How the activity is	1st Stage: <ul style="list-style-type: none"> The teacher stands against the group of 5 people.




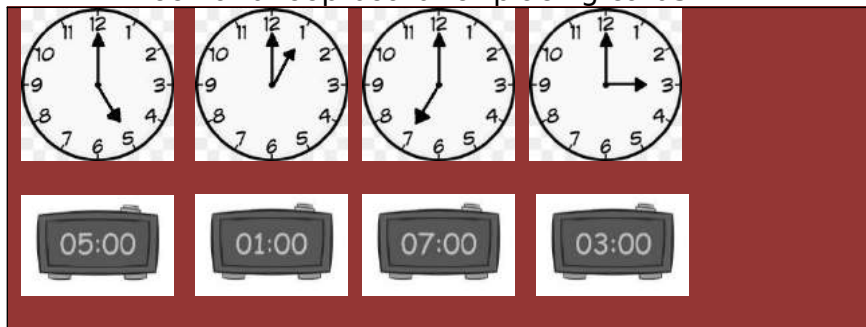

<p>implemented?</p>	<ul style="list-style-type: none"> • Simple games are played for children to recognize the cards. • The cards showing the digital clocks are distributed face down to the children first. Children examine their cards and show the clocks in order. • The child who has the card showing 1 o'clock in his/her hand raises the card and shows the card by saying 1 o'clock aloud. Then the child, who has the card showing 2 o'clock, raises the card and says 2 o'clock. The game continues in this way until all clocks are shown. • After the digital clocks are shown, the cards showing the analogue clocks are distributed and the clocks are recognized by showing the cards in order as played in digital clocks. <p>2nd Stage: The teacher takes cards showing the analogue clocks and chooses a card from the deck. For example, the teacher takes the card showing 10 o'clock among the clocks. Children have cards in their hands showing digital clocks. Two children must come together to find the digital clocks that show 10 o'clock. Children with 10:00 and 22:00 in hand.</p> 
<p>ROLES of the CHILDREN</p>	<ul style="list-style-type: none"> • Speaker: The person who will show the analogue clocks and tell you what time it is. • Director: The person who maintains order and allows children to fulfill their roles, avoiding fights. • Coach: The person who decides who answers. • Referee: The person who checks whether the selected cards are correct and sticks smiley faces on the evaluation board. • Player: The person who tells if there are different digital clocks showing the selected time.
<p>ROLE of the TEACHER:</p>	<p>He/she provides materials, explains and clarifies incomprehensible points, distributes roles, clarifies the tasks associated with each role, strengthens the process carried out and cooperation between children.</p>
<p>EXTRA RESOURCES</p>	
<p>Other remarks / Hints for the</p>	<p>EVALUATION What would you like to change at the activity?</p>



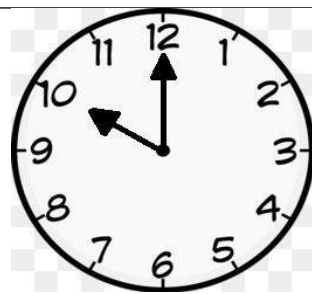
implementation	What are the differences between digital and analogue clocks? Why do we use clocks? What clocks do you use at home? What other tools do we use to measure time? What would happen if there was no clock?
References, if any	

Clock Clock! - group with robot																										
AGE RANGE	5-6																									
Activity for...	Group / with robot																									
Author	Aysu Öztaş,İdeal Çocuk Kindergarten,Turkey.																									
DURATION / TIMING:	30-40 minutes																									
REQUIRED MATERIALS:	<ul style="list-style-type: none">Cards showing digital and analogue clocks <div></div> <ul style="list-style-type: none">Robot DOC <div></div> <ul style="list-style-type: none">Floor prepared according to Robot Doc <table><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td>START</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>														START											
																										
																										
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	<ul style="list-style-type: none"> • A mat of sufficient size for the cards to be placed on it  • A hook and loop board for placing cards  • Necklaces prepared to distribute roles to children 
PREPARATION OF THE ENVIRONMENT:	Teacher prepares digital and analogue clocks cards and robot platform
DETAILED DESCRIPTION: How the activity is implemented?	<p>1st Stage:</p> <ul style="list-style-type: none"> • The teacher stands against the group of 5 people. • Simple games are played for children to recognize the cards. • The cards showing the digital clocks are distributed face down to the children first. Children examine their cards and show the clocks in order. • The child who has the card showing 1 o'clock in his/her hand raises the card and shows the card by saying 1 o'clock aloud. Then the child, who has the card showing 2 o'clock, raises the card and says 2 o'clock. The game continues in this way until all clocks are shown. • After the digital clocks are shown, the cards showing the analogue clocks are distributed and the clocks are recognized by showing the cards in order as played in digital clocks. <p>2nd Stage:</p> <p>The teacher takes cards showing the analogue clocks and chooses a card from the deck.</p> <p>For example, the teacher takes the card showing 10 o'clock among the clocks. Children have cards in their hands showing digital clocks. Two children must come together to find the digital clocks that show 10 o'clock. Children with 10:00 and 22:00 in hand.</p>





3rd Stage:

After the children gain experience with the previous activities, the teacher distributes the materials to the children to give the roles. Accordingly, children enter the roles of coach, referee, director, speaker and player.

The teacher will tell the children that they need to work as a team and that each has to do something and organize themselves.

The speaker chooses a clock from the deck and tells what time it is.

Coach tells him to choose one of the group and put the digital clock showing the said time on the board.






The player reaches the said hours by moving the robot on the mat.

The referee checks whether the selected cards are correct and asks the group to think again. If true, places a smiley face on the evaluation board.

The process is repeated until all the cards are found.


			START	



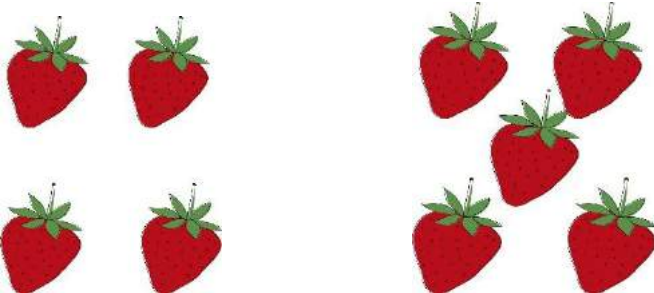
	<p>In the process, if the robot</p>  <p>stops here, the children will say a nice word to the person on their right about how he/she looks today.</p>  <p>stops here, the children will hug each other.</p>																
<p>ROLES of the CHILDREN</p>	<ul style="list-style-type: none"> • Speaker: The person who will show the analogue clocks and tell you what time it is. • Director: The person who maintains order and allows children to fulfill their roles, avoiding fights. • Coach: The child who will ask a child in the group to find the times on which the robot moves from the deck and put it on the board. • Referee: The person who checks whether the selected cards are correct and sticks smiley faces on the evaluation board. <table border="1" data-bbox="697 996 1101 1232"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table> <ul style="list-style-type: none"> • Player: The person who directs the robot to find the clocks showing the time chosen by the speaker. 																
																	
<p>ROLE of the TEACHER:</p>	<p>He/she provides materials, explains and clarifies incomprehensible points, distributes roles, clarifies the tasks associated with each role, strengthens the process carried out and cooperation between children.</p>																
<p>EXTRA RESOURCES</p>																	
<p>Other remarks / Hints for the implementation</p>	<p>EVALUATION</p> <ul style="list-style-type: none"> • What would you like to change at the activity? • Was it easy for you to direct the robot on the mat? In what other ways would you like to advance the robot? • What are the differences between digital and analogue clocks? • Why do we use clocks? • What clocks do you use at home? • What other tools do we use to measure time? • What would happen if there was no clock? 																
<p>References, if any</p>																	



Counting Fruits - group without robot

AGE RANGE	5-6
Activity for...	Group without robot
Author	Ece Gürcan- Sena İşsever, TED Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Fruit Cards, • Number cards, • A mat of sufficient size for the cards to be placed on top (Material pictures are attached).
PREPARATION OF THE ENVIRONMENT:	The teacher prepares the cards for the activity on a flat surface.
DETAILED DESCRIPTION: How the activity is implemented?	<p>1st Stage: The teacher puts the fruit cards that they will use in the activity on the mat. The child chooses two identical fruit cards from the pouch given by the teacher. For example, let the child choose apple cards. By placing these cards side by side, the apples on the two cards are counted.</p> <div style="display: flex; justify-content: space-around; align-items: center;">  </div> <p>The child counts the apples on both cards above. He/she tells whether the apple is increased or decreased on the 2nd card. Such as "There are 4 apples on the 1st card. There are 8 apples on the 2nd card. The apples have increased on the 3rd card." . If it is less, it is asked to say and write how many fruits are missing and if the fruits are increased, how many fruits are increased. For example, 4 apples are increased in the 2nd card above. After this stage, the child has to find the number (4) among the number cards.</p> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px 10px; display: inline-block;">4</div> 5 7 17 12 14 9 </div>
ROLES of the CHILDREN	Choosing a card from the pouch and finding the relevant number by adding or subtracting according to the card.

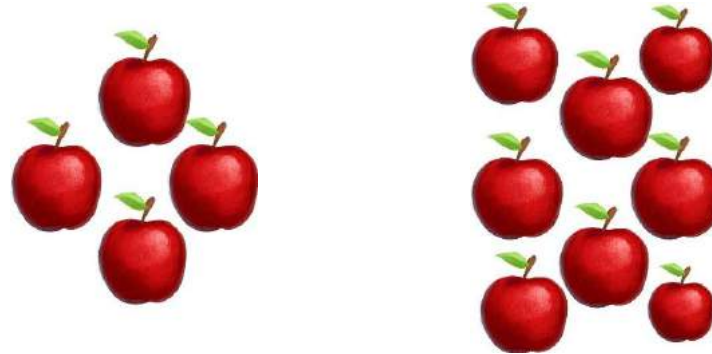


ROLE of the TEACHER:	Introduces the activity and guides children to the next stage.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	<p>EVALUATION: Evaluation is done together with the children in the form of a game. Children are shown a number card. For example, a card with 1 written on it is shown.</p> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 10px 0;">1</div> <p>They are asked with which fruit card they can reach the number 1. The fruits on all cards are examined. Children are guided to find the specified number by working with cards among themselves. The teacher guides the process of deciding which cards to work with in order for the children to determine the number themselves and reach this number.</p> <div style="text-align: center; margin-top: 20px;">  </div>
References, if any	

Counting Fruits - group with robot	
AGE RANGE	5-6
Activity for...	Group with robot
Author	Ece Gürcan- Sena İşsever, TED Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Fruit Cards, • Number cards, • A mat of sufficient size for the cards to be placed on top, • Educational Robot Clementoni Doc, • A floor prepared according to Robot Doc at the Activity. (Material pictures are attached).
PREPARATION OF THE ENVIRONMENT:	The teacher prepares the activity on a flat surface.
DETAILED DESCRIPTION: How the activity is implemented?	<p>The teacher puts the fruit cards that they will use in the activity on the mat. The child chooses two identical fruit cards from the pouch given by the teacher. For example, let the child choose apple cards.</p> <p>By placing these cards side by side, the apples on the two cards</p>

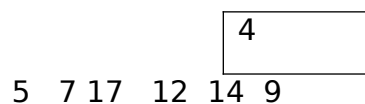


are counted.



The child counts the apples on both cards above. He/she tells whether the apple is increased or decreased on the 2nd card. Such as "There are 4 apples on the 1st card. There are 8 apples on the 2nd card. The apples have increased on the 3rd card." . If it is less, it is asked to say and write how many fruits are missing and if the fruits are increased, how many fruits are increased. For example, 4 apples are increased in the 2nd card above.

After this stage, the child has to find the number (4) among the number cards.



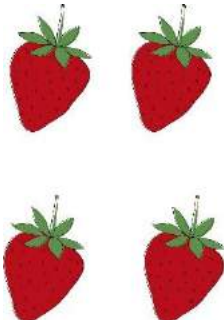
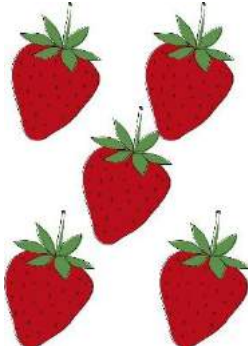
2nd Stage

In Stage 2 of the activity, the robot platform is laid down. Child is guided to code Robot Doc to reach the number 4 on the activity mat.

Robot Platform

1		5	15	17
13			11	
		START 		3
4				7
20		9		12

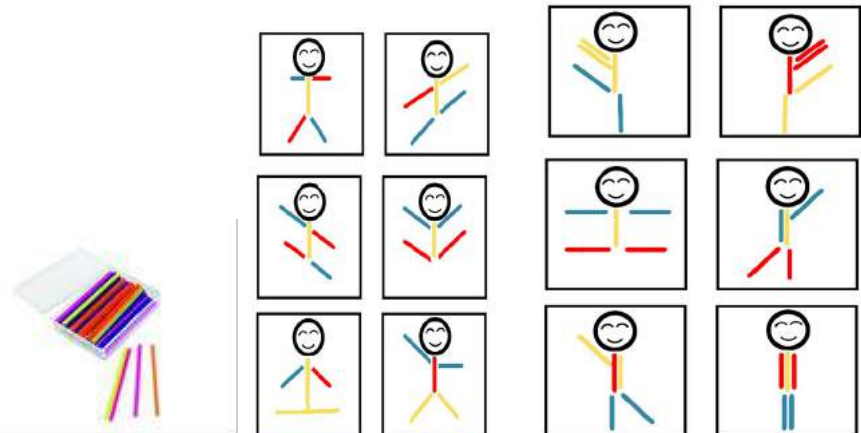


ROLES of the CHILDREN	Choosing a card from the pouch and coding the Robot Doc by adding or subtracting according to the card.
ROLE of the TEACHER:	Introduces the activity and guides students to the next stage.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	<p>EVALUATION is done together with the children in the form of a game. Children are shown a number card. For example, a card with 1 written on it is shown.</p> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 10px 0;">1</div> <p>They are asked with which fruit card they can reach the number 1. The fruits on all cards are examined. Children are guided to find the specified number by working with cards among themselves. The teacher guides the process of deciding which cards to work with in order for the children to determine the number themselves and reach this number.</p> <div style="text-align: center; margin-top: 20px;">   </div>
References, if any	

Dance with the cards - group without robot


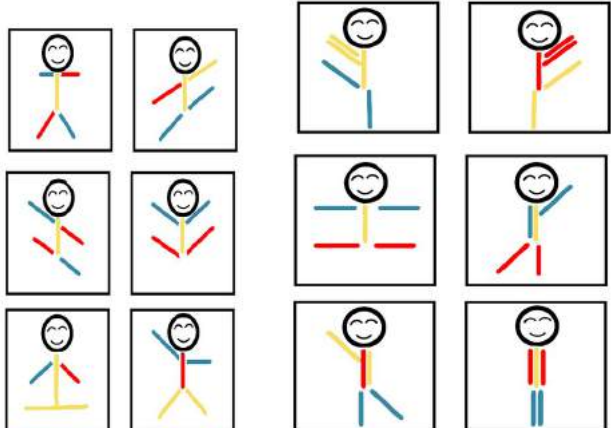
AGE RANGE	5-6
Activity for...	Group without robot
Author	Fatma Uyanık, Yükselen Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Stick Figure Cards Colored Number Sticks



	 <p style="text-align: center;">Colored sticks Stick figure visuals</p>
PREPARATION OF THE ENVIRONMENT:	Stick figure cards and colored sticks are prepared. Half stick figures are put in a box.
DETAILED DESCRIPTION: How the activity is implemented?	<ul style="list-style-type: none"> • Before starting the activity, colored sticks and complete stick figure visuals are placed on the table. • The teacher shows the children the complete stick figure visuals. Small and simple games can be played to familiarize children with the cards. As a warm-up movement, the children are asked to do the movements on the cards. • Children are guided to complete/place the visuals on the full stick figure cards on the table with the help of colored sticks. • The teacher then shows the half stick figure visuals to the children one by one. • He/she gives each child half a stick figure visual and ask them to find the other half of the stick figure from the box. • Each child finds the other half of the stick figure in their own hand from the box and pastes it on the board as a whole.
ROLES of the CHILDREN	Children do the movements in the stick figure visuals during the warm-up movements. Creating the full stick figure visual with sticks. Finding matches of the half stick figures.
ROLE of the TEACHER:	The teacher does the stick figure movements with the children. He/she guides children to complete half stick figures.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: Children's movement skills in accordance with stick figure visuals and their ability to complete stick figure visuals are evaluated by observing. During the movements, photos are taken and children are asked to compare the photos with the stick figure visuals. Evaluation is made with the children and by examining the photographs taken, the completed stick figures.
References, if any	




Dance with the cards - group with robot

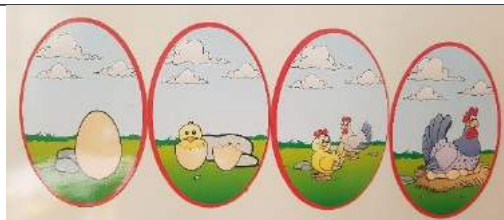
AGE RANGE	5-6
Activity for...	Group with robot
Author	Fatma Uyanık, Yükselen Kindergarten, Turkey
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Stick Figure Cards Colored Number Sticks Robot Doc Board Prepared for Robot Doc at the Activity <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;">  </div> </div> <p style="text-align: center;">Colored sticks Number of children Stick figure visuals</p>
PREPARATION OF THE ENVIRONMENT:	Stick figure cards and colored sticks are prepared. Half stick figures are put in a box
DETAILED DESCRIPTION: How the activity is implemented?	<p>Before starting the activity, colored sticks and complete stick figure visuals are placed on the table.</p> <p>The teacher shows the children the complete stick figure visuals. Small and simple games can be played to familiarize children with the cards. As a warm-up movement, the children are asked to do the movements on the cards.</p> <p>Children are guided to complete the visuals on the full stick figure cards with the help of colored sticks.</p> <p>The teacher then shows the half stick figure visuals to the children one by one.</p> <p>He/she gives each child half a stick figure and ask them to find the other half of the stick figure from the box.</p> <p>Each child finds the other half of the stick figure in their own hand from the box and pastes it on the board as a whole.</p> <p>Then the half stick figure cards are placed on the platform and the robot is coded accordingly to complete the whole stick figure. The activity is completed.</p>
ROLES of the CHILDREN	Children do the movements in the stick figure visuals during the warm-up movements. Completing the robot stick figure picture by coding the robot.
ROLE of the TEACHER:	The teacher will observe and follow the children.



EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: Children's movement skills in accordance with stick figure visuals and their ability to complete stick figure visuals are evaluated by observing. During the movements, photos are taken and children are asked to compare the photos with the stick figure visuals. Evaluation is made with the children and by examining the photographs taken, the completed stick figures.
References, if any	

Formation of entities - group without robot

AGE RANGE	5-6
Activity for...	Group without robot
Author	Münevver Yalçın, Hep Çocuk Kindergarten, Turkey
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Formation (event sorting) cards of 5 objects or entities. (tree, chicken, rain, bread, milk) 



- Magnetic or an appropriately sized board (classboard) for sorting the cards.
- Badges or necklaces with pictures of entities on formation cards prepared to distribute roles to children.



**PREPARATION OF
THE
ENVIRONMENT:**

The teacher and 5 students are present in the classroom environment.
The teacher distributes badges/necklaces consisting of pictures of entities to the children.
Activity cards are placed on the table in order, face down.
Samples of the cards belonging to the pictures on the task badges/necklaces are also presented to the teacher.

**DETAILED
DESCRIPTION:
How the activity is
implemented?**

The teacher stands against the group of 5 people. A conversation is made about the formation stages of an event/situation or entity. Apart from the cards to be used in the activity, a conversation is made about the formation of different objects/situations/events. For example, the children's opinions about honey and the formation stages of the butterfly are asked. Task badges/necklaces are distributed to the children and the pictures on them are examined. The teacher asks the children to guess about the formation of the entities on these cards. Each child is guided to present their ideas individually. Children can also help their struggling friends by giving ideas.





Then, all the cards (cards of bread, chicken, tree, milk formation stages) showing the formation stage of the entities are placed on the table by turning them upside down.

The teacher gives a child the task of turning over one of the badges/necklaces on the table. The child chooses one of the badges/necklaces. For example, let's say he/she chose a badge/necklace with a picture of bread. Whichever child has the badge/necklace of the bread picture, that child tries to find the right cards on the table and sort the cards on the magnetic board/classboard according to the formation stage.

Wrongly sorted cards are found by asking other children's ideas and by asking questions, and it is aimed to order them correctly. The player child determines the new player by choosing one of the badges/cards on the table after he/she has sorted his/her cards. Thus, all children are guided in ordering the formation stages of the entities on their task cards.



The child finds the relevant cards from the table and pastes them on the board.

ROLES of the CHILDREN	Children often collaboratively try to complete the activity/event sorting cards correctly.
ROLE of the TEACHER:	Prepares the class and appropriate materials for the activity, Guides children during the implementation of the activity, Observes the children during the implementation of the activity,
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: <ul style="list-style-type: none"> At the end of the activity, whether the children have completed the formation sorting cards in cooperation, their intra-group understanding, agreement, empathy skills and communication skills are observed. The ability of children to solve the problems they encounter while creating a new product with patience and determination is observed.
References, if any	



Formation of entities - group with robot

AGE RANGE

5-6

Activity for...

Group with robot

Author

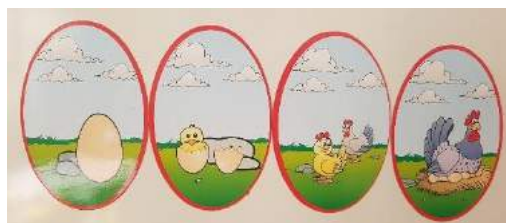
Münevver Yalçın, Hep Çocuk Kindergarten, Turkey.

**DURATION /
TIMING:**

30-40 minutes

- Formation (event sorting) cards of 5 objects or entities. (tree, chicken, rain, bread, milk)

**REQUIRED
MATERIALS:**



- Robot DOC



- Card mat / cardboard floor to work with Robot DOC.





- Magnetic or an appropriately sized board (classboard) for sorting the cards.
- Badges or necklaces with pictures of entities on formation cards prepared to distribute roles to children.



PREPARATION OF THE ENVIRONMENT:

The teacher and 5 students are present in the classroom environment.
The teacher distributes badges/necklaces consisting of pictures of entities to the children.



	<p>Activity cards are placed on the table in order, face down. Samples of the cards belonging to the pictures on the task badges/necklaces are also presented to the teacher.</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>The teacher stands against the group of 5 people. A conversation is made about the formation stages of an event/situation or entity. Apart from the cards to be used in the activity, a conversation is made about the formation of different objects/situations/events. For example, the children's opinions about honey and the formation stages of the butterfly are asked. Task badges/necklaces are distributed to the children and the pictures on them are examined. The teacher asks the children to guess about the formation of the entities on these cards. Each child is guided to present their ideas individually. Children can also help their struggling friends by giving ideas.</p>  <p>Then, all the cards (cards of bread, chicken, tree, milk formation stages) showing the formation stage of the entities are placed on the table by turning them upside down. The teacher gives a child the task of turning over one of the badges/necklaces on the table. The child chooses one of the badges/necklaces. For example, let's say he/she chose a badge/necklace with a picture of bread. Whichever child has the badge/necklace of the bread picture, that child tries to find the right cards on the table and sort the cards on the magnetic board/classboard according to the formation stage.</p> <p>Wrongly sorted cards are found by asking other children's ideas and by asking questions, and it is aimed to order them correctly. The player child determines the new player by choosing one of the badges/cards on the table after he/she has sorted his/her cards. Thus, all children are guided in ordering the formation stages of the entities on their task cards.</p>  <p>The child finds the relevant cards from the table and pastes them on the board.</p> <p>In the second stage, cards showing the formation stage of the two entities are placed on the mat prepared for Robot Doc. Task badges/necklaces are distributed to children. Cards with pictures of entities found on task badges/necklaces are placed on the table by turning them upside down.</p>

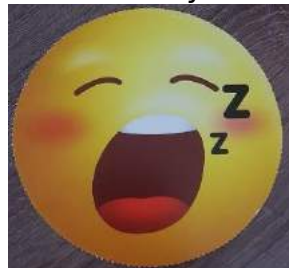




The teacher assigns a task to a child. He/she asks him/her to turn over one of the cards. The child who has the picture badge/necklace of the selected card becomes a player. The child who completes the game chooses one of the badges/necklaces and determines the new player. The child who completes the game determines the other player by choosing a badge/necklace. The player puts Robot Doc at the starting point on the mat and tries to complete the stages by coding. During the activity, if the player stops at the wrong picture during a coding;



"Tell us an incident that made you angry, what would you do?" command is given for this card.



"Tell us a lullaby your mother told you" command is given for this card.



"Say something that makes us happy because you are happy" command is given for this card.


Commands can be expanded with similar questions or it can be asked to do an imitation that the other children decide (meow like a cat, walk like a bear, jump three times, etc.).

After both tasks on the mat are completed, the cards are replaced


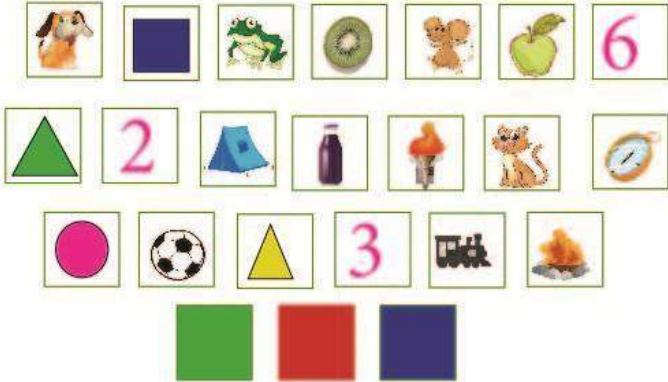



	with new task cards. Each student is guided to complete their task.
ROLES of the CHILDREN	Children often collaboratively try to complete the activity/event sorting cards correctly.
ROLE of the TEACHER:	Prepares the class and appropriate materials for the activity, Guides children during the implementation of the activity, Observes the children during the implementation of the activity,
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: <ul style="list-style-type: none"> At the end of the activity, whether the children have completed the formation sorting cards in cooperation, their intra-group understanding, agreement, empathy skills and communication skills are observed. The ability of children to solve the problems they encounter while creating a new product with patience and determination is observed. The contribution of the DOC robot to children's cooperation, empathy, problem solving, willingness, etc. skills is observed.
References, if any	

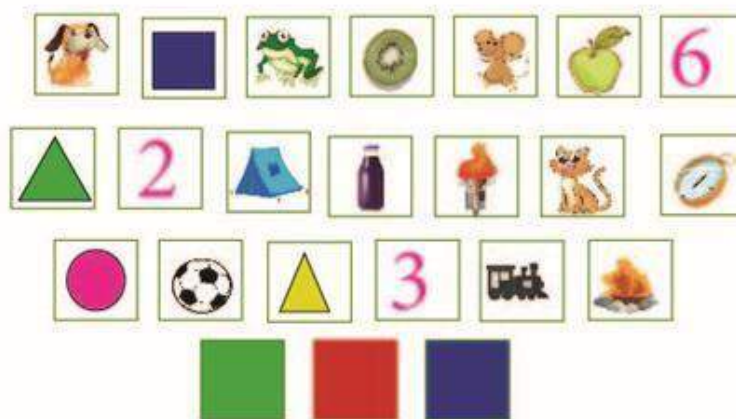
Keep in mind! - group without robot

AGE RANGE	5-6
Activity for...	Group without robot
Author	Meral Gül,Hatice Sağlamer Kindergarten,Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Playing cards, memory cards, task cards Task cards  <ul style="list-style-type: none"> Memory cards (23 pcs)



	 <ul style="list-style-type: none"> Hand cards (2, 3, 4 and 5 can be prepared with pictures. The pictures on the memory cards are used to prepare.) 
<p>PREPARATION OF THE ENVIRONMENT:</p>	<p>The table where 5 children can move easily, game and memory cards are prepared on the table in advance. The board is hung to draw stars.</p>
<p>DETAILED DESCRIPTION: How the activity is implemented?</p>	<p>The child in the role of the Scholar arranges 23 memory cards on the table. The child in the role of Director takes one of the hand playing cards and shows it to the Trainer. For example, let's say he/she chose the card with the 5 pictures below</p>  <p>He/she asks him/her to examine all the pictures. The Trainer examines these pictures in order. Then he/she turns over the cards. The Director asks the Trainer to find the same pictures and in the same order from the memory cards below.</p>





The **Director** tells the Trainer to keep these turned-up pictures in his/her memory.

The **Trainer** tries to find the pictures in the same order (frog, 2, black rectangle, cat and tent) by guessing the pictures on the card he/she sees among the 23 pictures on the memory card on the table.

He/she takes the pictures of **frog, 2, black rectangle, cat and tent** that he/she remembers in order and gives them to the **Referee** to check their accuracy.

The **Referee** checks whether the cards are correct.

When the **Referee** informs the Coach that it is correct, the coach draws a star on the board.

If the child has difficulty guessing the cards, he/she is asked to find one of the cards. Afterwards, he/she is guided to find 2 or more cards.

ROLES of the CHILDREN

- **Director:** The hand chooses one of the playing cards
- **Trainer:** Among the memory cards on the table, he/she finds the same pictures he/she sees on the game card, in the same order.
- **Referee:** The Referee checks the correctness of the cards. If correct, he/she notifies the group that it is correct.
- **Coach:** Places a star on the board.
- **Scholar:** Places the memory cards on the table.

ROLE of the TEACHER:

He/she guides the game process. He/she determines the difficulty level of the activity by creating 2, 3 and 4 or more playing cards according to the level of the children.

EXTRA RESOURCES

Other remarks / Hints for the implementation

EVALUATION: Children are asked how many consecutive pictures they can remember. It is discussed what they pay attention to in order to remember the pictures.

References, if any



Keep in mind! - group with robot

AGE RANGE

5-6

Activity for...

Group with robot

Author

Meral Gül, Hatice Sağlamer Kindergarten, Turkey.

**DURATION /
TIMING:**

30-40 minutes

REQUIRED MATERIALS:

- Playing cards, memory cards, task cards, doc robot and robot platform
- Task cards



- Memory cards (23 pcs)



- Hand cards (2, 3, 4 and 5 can be prepared with pictures. The pictures on the memory cards are used to prepare.)



- Robot and board





PREPARATION OF THE ENVIRONMENT:

The table where 5 children can move easily, game and memory cards are prepared on the table in advance. The board is hung to draw stars. The robot platform is prepared to be used in the second stage of the activity.

DETAILED DESCRIPTION: **How the activity is implemented?**

1st Stage:

The teacher distributes the roles in the game to the children with role necklaces. He/she explains tasks to children. Children manage the game process entirely by their roles.

The child in the role of the **Scholar** arranges 23 memory cards on the table.

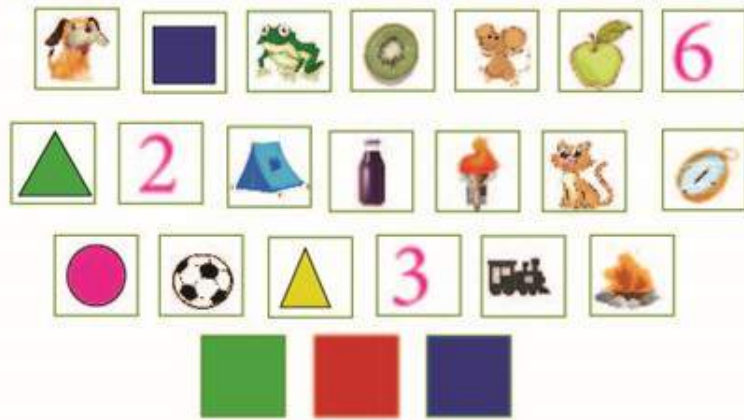
The child in the role of **Director** takes one of the hand playing cards and shows it to the **Trainer**. For example, let's say he/she chose the card with the 5 pictures below.



He/she asks him/her to examine all the pictures.

The **Trainer** examines these pictures in order. Then he/she turns over the cards. The **Director** asks the Trainer to find the same pictures and in the same order from the memory cards below.





The **Director** tells the **Trainer** to keep these turned-up pictures in his/her memory.

The **Trainer** tries to find the pictures in the same order (frog, 2, black rectangle, cat and tent) by guessing the pictures on the card he/she sees among the 23 pictures on the memory card on the table.

He/she takes the pictures of **frog, 2, black rectangle, cat and tent** that he/she remembers in order and gives them to the **Referee** to check their accuracy.

The **Referee** checks whether the cards are correct.

When the **Referee** informs the Coach that it is correct, the coach draws a star on the board.

If the child has difficulty guessing the cards, he/she is asked to find one of the cards. Afterwards, he/she is guided to find 2 or more cards.

2nd Stage:

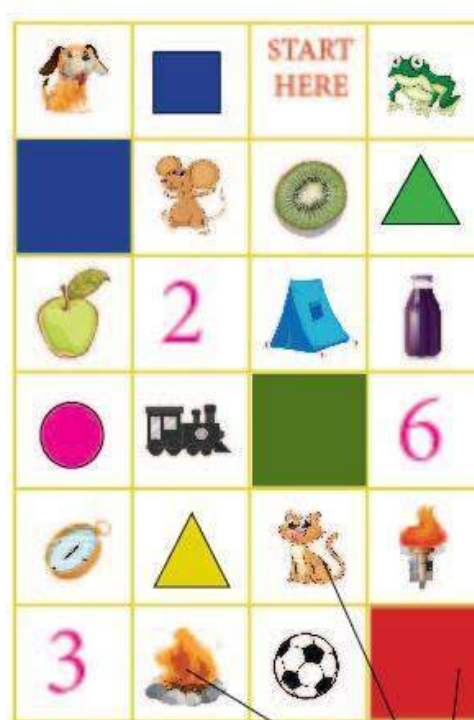
The second repetition of the activity is done on the robot and the robot platform. For example;

In the second stage of the activity, the robot and its platform are prepared on the ground. The **Director** child selects and shows a game card consisting of 5 pictures.



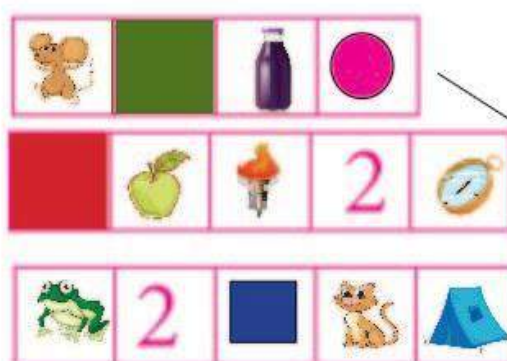
This time, the Trainer codes the robot to collect the pictures on the card in order. For example, he/she codes the robot to go first to the frog, then 2, then the black rectangle, then the cat, then the tent.





Robot matı 4*6

Resimli Kartlar : matın üzerine yerleştirilecek



Kart Örnekleri
(Mattaki resimlerin aynısı
olacak)

ROLES of the CHILDREN

- **Director:** The hand chooses one of the playing cards.
- **Trainer:** Among the memory cards on the table, he/she finds the same pictures he/she sees on the game card, in the same order. In the robotic part of the game, he/she codes the robot to collect the pictures on the card.
- **Referee:** The Referee checks the correctness of the cards. If correct, he/she notifies the group that it is correct.
- **Coach:** Draws a star on the board.
- **Scholar:** Places the memory cards on the table.

ROLE of the TEACHER:

He/she guides the game process. He/she determines the difficulty level of the activity by creating 2, 3 and 4 or more playing cards according to the level of the children.



EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: Children are asked how many consecutive pictures they can remember. It is discussed what they pay attention to in order to remember the pictures and when coding the robot.
References, if any	

Recycle the material - group without robot

AGE RANGE	5-6
Activity for...	Group without robot
Author	Arzu Kuyanç, Şeniz Kurt, Sultan Doğan, Gökçe Ünal Güçlü, Melek Durmuş, Yeşilevler Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes

- Pictures of Recycling Wastes,
- Event Sorting Cards of Collection and Recycling of Wastes from Recycling,
- Task Necklaces,
- Matching Board,
- Evaluation Board

REQUIRED MATERIALS:



Glass recycling banners



Plastic recycling banners





Paper recycling banners



Recycling waste bins



Smiley face board





Recycling task cards
(child will choose one of these cards first)



Role necklaces

**PREPARATION OF
THE
ENVIRONMENT:**

Conversation is made with the children about which waste is recyclable. It is discussed about why this waste should be recycled and what effects it has on our nature and our world. Banners about recycling are examined. Event sorting cards to be used during the application are brought to the environment. They are placed on the table and the boards are hung where children can reach them.

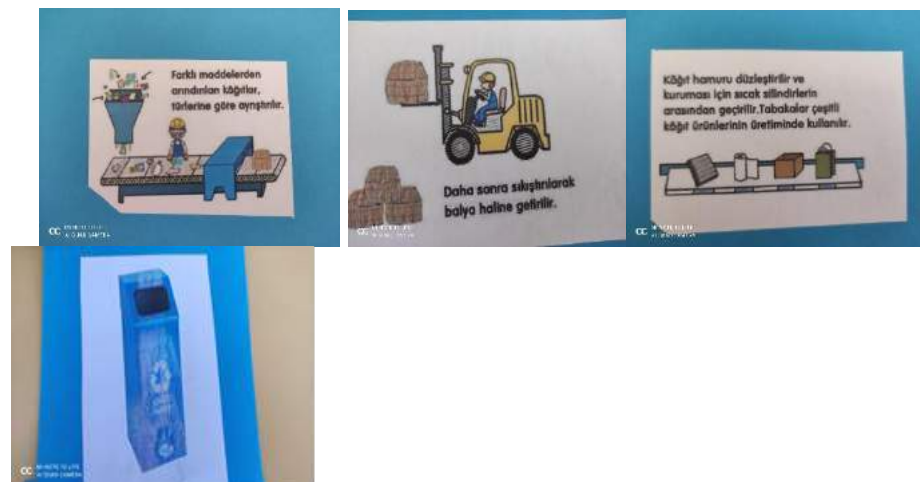
**DETAILED
DESCRIPTION:
How the activity is
implemented?**

The teacher brings and introduces the waste bins that he/she hangs on the hook and loop board. He/she then places the box having the pictures of the recyclable wastes with the order of processes in the middle. He/she distributes roles to children. The speaker tells the recycling material. For example, the blue card. (transformation stages of the paper). The coach chooses the player. The player first says that the blue card represents the paper and finds the pictures containing the recycling stages of the paper and pastes them on the board. The referee checks the result and discusses with the group whether it is correct. The director maintains order in the process so that everyone performs their role right. For example, the child who takes the blue card collects the order of the paper recycling pictures and throws them into the blue waste bin. The child who takes the green task card finds the order of the glass waste recycling pictures and throws them into the green waste bin. The child who takes the yellow task card finds the order of the plastic waste recycling pictures and throws them into the yellow waste bin. Other children give feedback on the correct completion of the task.





Plastic recycling stages



Paper recycling stages





Glass recycling stages



ROLES of the CHILDREN

Speaker: Chooses one of the blue, yellow and green cards and says it. For example, the blue card. Also, the player helps the child if he/she does not know which recycling material the blue card represents. For example, "You will

	<p>collect paper waste". He/she reminds the group of the task.</p> <p>Player: The child who collects the recycling cards.</p> <p>Director: Maintains order and ensures that everyone respects their roles by avoiding fights in the group. He/she will also place happy faces for evaluation.</p> <p>Coach: Decides who will collect the card selection and event sorting cards.</p> <p>He/she will decide who puts the picture on the event sorting cards on the hook and loop board or panel.</p> <p>Referee: He/she will decide whether the result is correct or if the group should reconsider and change it if necessary.</p>
ROLE of the TEACHER:	The teacher is in the role of guide. He/she guides children through the event sorting game. He/she watches without direction.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: He/she guides children to make the evaluation discussing among themselves.
References, if any	

Recycle the material - group with robot

AGE RANGE	5-6
Activity for...	Group with robot
Author	Arzu Kuyanç, Şeniz Kurt, Sultan Doğan, Gökçe Ünal Güçlü, Melek Durmuş Yeşilevler Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<p>Pictures of Recycling Wastes, Event Sorting Cards of Collection and Recycling of Wastes from Recycling Task Necklaces, Matching Board, Evaluation Board</p>  <p>Glass recycling banner</p>





Plastic recycling banners



Paper recycling banners



Recycling waste bins





Smiley face board




Recycling task cards (child will choose one of these cards first)



Robot platform with recycling pictures

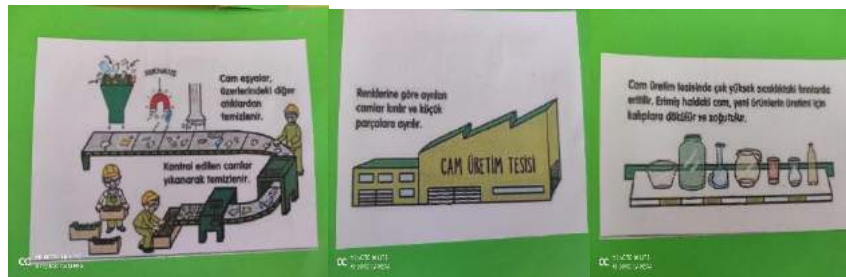


Role necklaces

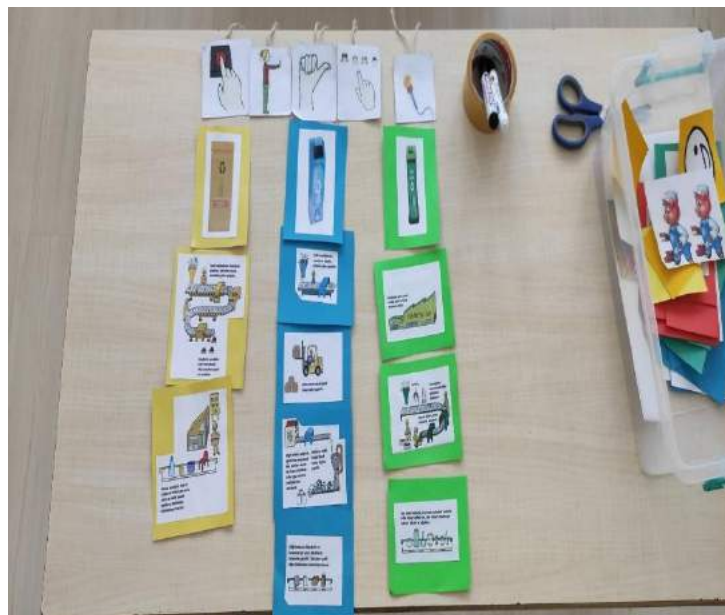
PREPARATION OF THE ENVIRONMENT:	<p>Conversation is made with the children about which waste is recyclable. It is discussed about why this waste should be recycled and what effects it has on our nature and our world. Banners about recycling are examined. Event sorting cards to be used during the application are brought to the environment. They are placed on the table and the boards are hung where children can reach them.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>The teacher brings and introduces the waste bins that he/she hangs on the hook and loop board. He/she then places the box having the pictures of the recyclable wastes with the order of processes in the middle. He/she distributes roles to children. The speaker tells the recycling material. For example, the blue card. (transformation stages of the paper). The coach chooses the player. The player first says that the blue card represents the paper and finds the pictures containing the recycling stages of the paper and pastes them on the board. The referee checks the result and discusses with the group whether it is correct. The director maintains order in the process so that everyone performs their role right. For example, the child who takes the blue card collects the order of the paper recycling pictures and throws them into the blue waste bin. The child who takes the green task card finds the order of the glass waste recycling pictures and throws them into the green waste bin. The child who takes the yellow task card finds the order of the plastic waste recycling pictures and throws them into the yellow waste bin. Other children give feedback on the correct completion of the task.</p> <div data-bbox="502 1086 1324 1747">  <p>Plastic recycling stages</p> </div>




Paper recycling stages






Glass recycling stages

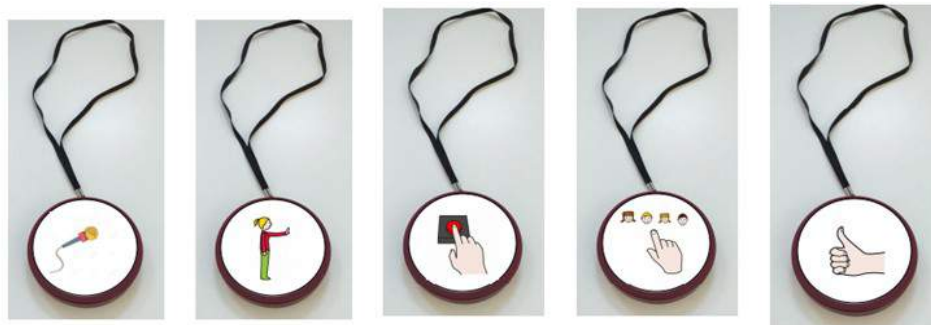


	<p>In the second stage of the activity, the teacher brings the robot platform and puts it on the ground. Children perform the recycling game in accordance with their roles, this time with a robot. The robot is placed on the platform. The player child codes the robot (for example, he/she chooses the blue card and collects the paper recycling stages by coding the robot on the robot's mat and pastes it on the board).</p> 
ROLES of the CHILDREN	<ul style="list-style-type: none"> • Speaker: Chooses one of the blue, yellow and green cards and says it. For example, the blue card. Also, the player helps the child if he/she does not know which recycling material the blue card represents. For example, "You will collect paper waste". He/she reminds the group of the task. • Player: The child who collects the recycling cards and codes the robot. • Director: Maintains order and ensures that everyone respects their roles by avoiding fights in the group. He/she will also place happy faces for evaluation. • Coach: Decides who will collect the card selection and event sorting cards. • He/she will decide who puts the picture on the event sorting cards on the hook and loop board or panel. • Referee: He/she will decide whether the result is correct or if the group should reconsider and change it if necessary.
ROLE of the TEACHER:	The teacher is in the role of guide. He/she guides children through the event sorting game. He/she watches without direction.
EXTRA RESOURCES	
Other remarks / Hints for the implementation	EVALUATION: He/she guides children to make the evaluation discussing among themselves.
References, if any	



Symmetry of the butterfly - group without robot





AGE RANGE	5-6
Activity for...	Group /without robot
Author	Mine Güntaş, Melisa Kızılkaya, Dilara Oral, Tefik Fikret Kindergarten, Turkey.
DURATION / TIMING:	30-40 minutes
REQUIRED MATERIALS:	<p>Symmetry cards consisting of butterfly wings and full butterfly images required for the activity.</p>  <ul style="list-style-type: none"> A mat of sufficient size for the cards to be placed on top (could be mat, styrofoam or blackboard).  <ul style="list-style-type: none"> An empty board for placing picture cards.  <ul style="list-style-type: none"> Necklaces prepared for distributing roles to children.



- Card box for placing event cards.






















- Evaluation Board








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Symmetry Control Board

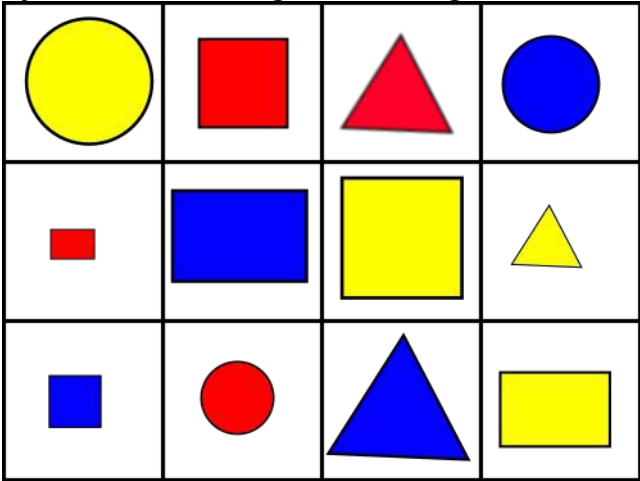


	    	
PREPARATION OF THE ENVIRONMENT:	<p>Children should be in an empty space suitable for the activity environment outside the classroom under the guidance of the teacher.</p>	
DETAILED DESCRIPTION: How the activity is implemented?	<p>*The teacher stands in front of the group of 5 people. In order for children to recognize the cards, the butterfly cards inside the box are examined.</p> <p>1st Stage: Inside the box, there are symmetry cards created with butterfly wings. Symmetry cards with butterfly wings are distributed to children. Each card contains a half wing visual of a butterfly. The teacher chooses 1 butterfly card from the deck with the full butterfly visual in his/her hand. Whichever children have the symmetrical cards of the butterfly card shown by the teacher, the children try to put together the symmetry visuals of the butterfly by saying "I have it". Matched cards are placed on the board and checked for correctness. The game continues until the teacher has no cards left.</p> <p>2nd Stage After the children gain experience with the previous activities, the teacher distributes the materials to the children to give the roles. Accordingly, children enter the roles of coach, referee, director, speaker and player. Children start and continue game according to their roles.</p> <p>Evaluation is made by the referee placing a smile on the happy face board.</p>	
ROLES of the CHILDREN	<ul style="list-style-type: none"> • The Speaker chooses a card from the box and says which butterfly card should have symmetry. • The Player is the person who will find the symmetry card chosen by the speaker. • The Coach chooses a child in the group and this child places the symmetry card chosen by the player on the board. • The Referee will be the person who will say whether the selected cards (cards on the board) are correct or if the group needs to reconsider the choices. • The Director will make sure everyone is doing their part and maintain order. 	
ROLE of the	<p>The teacher guides the child, and give proper feedbacks.</p>	

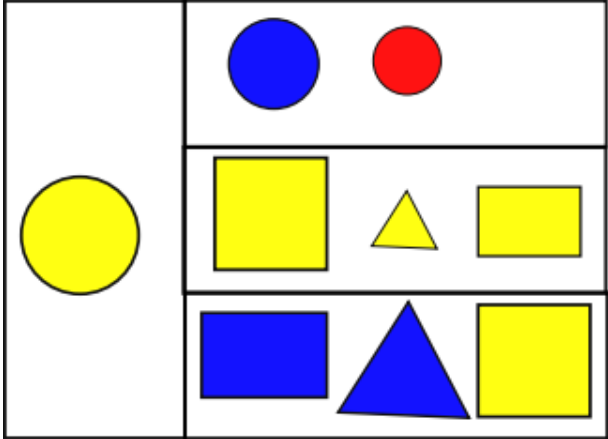


TEACHER:	
EXTRA RESOURCES	
Other remarks / Hints for the implementation	
References, if any	

Classification of geometric figures - group without robot

AGE RANGE	5/6				
Activity for...	Group of children without educational robotics (5 members)				
Author					
DURATION / TIMING:	2 hours				
REQUIRED MATERIALS:	<ul style="list-style-type: none"> Geometric shapes of different sizes and colours in wood or other material Coloured sheets to draw and cut out geometric shapes Scissors and glue Tables / cards for pasting the shapes during the activity <table border="1"> <tr> <td rowspan="3">(reference figure)</td><td>(figures similar in shape)</td></tr> <tr> <td>(similar figures by colour)</td></tr> <tr> <td>(figures similar in size)</td></tr> </table> <ul style="list-style-type: none"> Display board with the geometric figures drawn on. 	(reference figure)	(figures similar in shape)	(similar figures by colour)	(figures similar in size)
(reference figure)	(figures similar in shape)				
	(similar figures by colour)				
	(figures similar in size)				
PREPARATION OF THE ENVIRONMENT:	<p>The teacher introduces the geometric shapes, enhances children's familiarity with the characteristics of each shape, stimulates reflection on the general characteristics of objects: shape, colour, size. Children are invited to identify all the characteristics of the presented forms. For example: Triangle - large - yellow; Circle - medium - purple; Square - small - red; etc. The child is given scissors and coloured sheets from which to cut out a series of geometric figures (the same ones shown in the game board) that he/she will use as cards to complete the table.</p>				

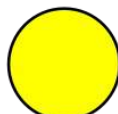





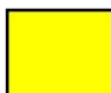





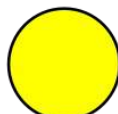





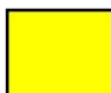





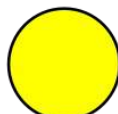





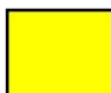









	This first activity can be carried out on the desk, in the classroom.
DETAILED DESCRIPTION: How the activity is implemented?	<p>The children have the poster on which the geometric figures are drawn in front of them. The teacher explains that they must group together the figures that have a common feature (shape, colour, size). One child in the group chooses a figure from the poster and sticks it to the card as a reference figure. Each child takes turns indicating a shape that shares a characteristic and pastes it into the summary sheet. The activity continues until the group identifies all the categorizations.</p> <p>For example: the child chooses the large yellow circle. The other children will have to group:</p> <ul style="list-style-type: none"> - all circles; - all yellow figures; - all large figures. <p>Example of the summary sheet:</p> 
ROLES of the CHILDREN	<ul style="list-style-type: none"> - Prepare the figures of the game (fine dexterity) - Identify the characteristics of the figures of the game - Choose the figure to start with - Classify the figures - Knowing how to orientate themselves in the table - Respect the shifts and choices of others - Find a common strategy - Fill in the summary sheet
ROLE of the TEACHER:	<ul style="list-style-type: none"> - Introduce the elements of the classification of the characteristics of the figures - Facilitate activities
Extra resources	
Other remarks / Hints for the implementation	
References, if any	

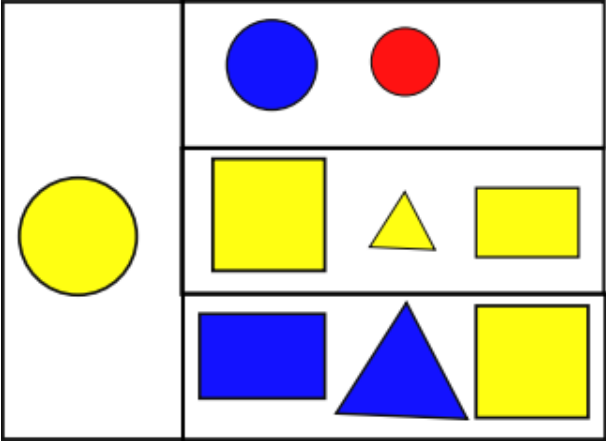
Classification of geometric figures - group with robot

AGE RANGE	5/6
Activity for...	Group of children with educational robotics



Author												
DURATION / TIMING:	2 hours											
REQUIRED MATERIALS:	<ul style="list-style-type: none">Geometric shapes of different sizes and colours in wood or other materialColoured sheets to draw and cut out geometric shapesScissors and glueTables / cards for pasting the shapes during the activity											
	<table><tr><td rowspan="3">(reference figure)</td><td>(figures similar in shape)</td></tr><tr><td>(similar figures by colour)</td></tr><tr><td>(figures similar in size)</td></tr></table>	(reference figure)	(figures similar in shape)	(similar figures by colour)	(figures similar in size)							
	(reference figure)		(figures similar in shape)									
			(similar figures by colour)									
		(figures similar in size)										
<ul style="list-style-type: none">Display board with the geometric figures drawn on.												
<table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>												
												
												
												
<ul style="list-style-type: none">Programmable educational robot (Clementoni Doc, SuperDoc, MindDesigner)												
	<div></div>											
PREPARATION OF THE ENVIRONMENT:	<p>The teacher introduces the geometric shapes, enhances children’s familiarity with the characteristics of each shape, stimulates reflection on the general characteristics of objects: shape, colour, size. Children are invited to identify all the characteristics of the presented forms. For example: Triangle - large - yellow; Circle - medium - purple; Square - small - red; etc. The child is given scissors and coloured sheets from which to cut out a series of geometric figures (the same ones shown in the game board) that he/she will use as cards to complete the table. This first activity can be carried out on the desk, in the classroom. If the children has never used the Clementoni robot, the teacher introduces its use, leaving the child time to familiarize with its commands.</p>											
DETAILED DESCRIPTION: How the activity is	<p>The children are seated on the ground in front of the game board and have the Clementoni robot at their disposal. The teacher explains that they must group together the figures that have a</p>											



implemented?	<p>common feature (shape, color, size). A child of the group chooses a figure which will be the reference one. Starting from the box with the chosen figure, the children will program the robots to complete a path that reaches the figures sharing the same characteristic: each time they reach one, they will take the same figure cut out in the preparation phase and attach it in the summary sheet.</p> <p>For example: the first child chooses the large yellow circle. The group will have to program the robot to reach:</p> <ul style="list-style-type: none"> - all circles; - all yellow figures; - all large figures. <p>Example of summary sheet:</p> 
ROLES of the CHILDREN	<ul style="list-style-type: none"> - Prepare the figures of the game (fine dexterity) - Identify the characteristics of the figures of the game - Choose the figure to start with - Classify the figures - Knowing how to orientate themselves in the table - Program the robot - Respect the shifts and choices of others - Find a common strategy - Fill in the summary sheet
ROLE of the TEACHER:	<ul style="list-style-type: none"> -Introduce the elements of the classification of the characteristics of the figures - Facilitate activities
Extra resources	
Other remarks / Hints for the implementation	
References, if any	


Hansel and Gretel, finding your way home - group without robot

AGE RANGE	5/6
Activity for...	Group of children without educational robotics
Author	Antonella Cavanna
DURATION /	Phase 1: 45 minutes



TIMING:	<p>Reading of the Story + Discussion + Drawing</p> <p>Phase 2: all the time you need</p> <p>Re-enactment of the fundamental points of the story +</p> <p>Presentation of activities + Game</p>
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Book with the story of Hansel and Gretel • Game Board (example attached) • Coloured Stones • Dice • Pawns
PREPARATION OF THE ENVIRONMENT:	<p>The children sit in a circle on the floor while the teacher reads the story, and they draw individually.</p> <p>During the game, the game board can be placed on the ground or on a table.</p> <p>The children listen to the story of "Hansel and Gretel".</p> <p>Discussion in order to highlight the misadventures of the two siblings and the positive experiences that have favored their return home.</p> <p>Drawing based on the story.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>GAME: "Finding Your Way Home"</p> <p>GOAL: from the starting point, the children must find a path that leads them to the house of Hansel and Gretel's father. In group, the children, interacting and cooperating with each other, must follow the path, moving the pawn following moving it for as many boxes as indicated by the dice.</p> <p>RULES:</p> <ol style="list-style-type: none"> 1. To reach the arrival, the children must go through the bird boxes, where they are given small stones to keep; only after having conquered all the stones (total of 10 indicated in the board with coloured dots), they are allowed to go to the arrival point. 2. During the journey the children must try to avoid the boxes with the Witch's House, as they constitute an unexpected event. Those who accidentally end up on one of them, must go back as many boxes as indicated on the board by the back arrows. 3. The group proceed after throwing the dice and moving the pawn for as many boxes as the result. The group has to find a strategy. 4. At the "ARRIVAL" box, the players must count the pebbles, and only if they have conquered all of them they have won the game.




	
ROLES of the CHILDREN	The children listen to the story and draw individually but during the game they can communicate and advice each other. The children in the group agrees on the turn-taking. They decide how to move along the board and which directions to take to reach the arrival with all the stones.
ROLE of the TEACHER:	The teacher reads the story, encourages the discussion, gives indications on how to carry out the activities, observes the children while they play. They can also advise the children if necessary.
Extra resources	
Other remarks / Hints for the implementation	The proposed board is just an example, the teacher can prepare is as needed or preferred adapting the path to the level of difficulty required.
References, if any	















Hansel and Gretel, finding your way home - group with robot

AGE RANGE	5/6
Activity for...	Group of children with educational robotics
Author	Antonella Cavanna
DURATION / TIMING:	<p>Phase 1: 45 minutes Reading of the Story + Discussion + Drawing</p> <p>Phase 2: all the time you need Re-enactment of the fundamental points of the story + Presentation of activities + Game</p>
REQUIRED MATERIALS:	<ul style="list-style-type: none"> • Book with the story of Hansel and Gretel • Game Board (example attached) • Coloured Stones • Educational Robots Clementoni (Doc, SuperDoc, Mind Designer) • Dice
PREPARATION OF THE ENVIRONMENT:	<p>The children sit in a circle on the floor and listen to the teacher reading the story. Then they draw individually. During the game, they can place the game board on the ground and use the robot.</p> <p>Phase 1:</p> <ul style="list-style-type: none"> • The children listen to the story of "Hansel and Gretel". • Discussion in order to highlight the misadventures of the two siblings and the positive experiences that have favored their return home. • Drawing based on the story.
DETAILED DESCRIPTION: How the activity is implemented?	<p style="text-align: center;">GAME: "Finding Your Way Home"</p> <p>GOAL: from the starting point, the children should find a path that leads them to the house of Hansel and Gretel's father. In group, the children, interacting and cooperating with each other, must follow the path, programming the robot following moving it for as many boxes as indicated by the dice.</p> <p>RULES:</p> <ol style="list-style-type: none"> 1. To reach the arrival, the children must go through the bird boxes, where they are given small stones to keep; only after having conquered all the pebbles (total of 10), they are allowed to reach to the arrival point. 2. During the journey the children must try to avoid the boxes with the Witch's House, as they constitute an unexpected event. Those who accidentally end up on one of them, must go back as many boxes as indicated on the board by the arrows. 3. The robots moves according to the result of the dice. The group has to find a strategy. 4. At the "ARRIVAL" box, the players must count the pebbles, and only if they have conquered all of them they have won the game.



	
ROLES of the CHILDREN	<p>The children listen to the story, draw individually, and during the game they can cooperate, discuss, and advise each other. The children in the group agrees on the turn-taking. They decide how to move along the board, who program the robot and which directions to take to reach the arrival with all the stones.</p>
ROLE of the TEACHER:	<p>The teacher reads the story, encourages discussion, gives indications on how to do the activities, watches the children as they work in group, and can encourage cooperation. The teacher cannot find the solution to the problematic situation, they have to encourage the group to find it independently.</p>
Extra resources	<p>It is possible to use cards from the well-known game "ONE" as a variation to SuperDoc command cards.</p> <p>With the use of these cards it is possible to operate on the storage of directional commands (there are no more arrows) combined with cards ONE (double task), on the processes of mental calculation and of individual and/ or strategic solving (problem solving) group.</p> <p>The cards also adapt to a CLIL activity.</p> <p>The combination of directional controls / cards UNO can be customized (e.g. children with color blindness). Below are some</p>



	examples.																				
	<table> <tr> <th>KIND OF CARD</th> <th>COLOUR</th> <th>NUMBER/ QUANTITY</th> <th>NOTES</th> </tr> <tr> <td></td> <td>Green = back</td> <td>3 steps</td> <td>Green The child repeats the command in English</td> </tr> <tr> <td></td> <td>Blue= turn right</td> <td>0 steps</td> <td>Blue The child repeats the command in english</td> </tr> <tr> <td></td> <td>The opponent programs the robot</td> <td></td> <td>Rainbow The child repeats the command in English</td> </tr> <tr> <td></td> <td>Stop for the opponent</td> <td>The opponent must stop one turn</td> <td></td> </tr> </table>	KIND OF CARD	COLOUR	NUMBER/ QUANTITY	NOTES		Green = back	3 steps	Green The child repeats the command in English		Blue= turn right	0 steps	Blue The child repeats the command in english		The opponent programs the robot		Rainbow The child repeats the command in English		Stop for the opponent	The opponent must stop one turn	
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Climbing robot - group with robot	
AGE RANGE	5
Activity for...	Groups of children with educational robotics
Author	Burgos University
DURATION / TIMING:	<p>We propose not to measure the timing in hours and minutes but according to the different stages based on the scientific method, that is, you can decide, basing on your pupils needs, how long to dedicate to each of the following stages.</p> <p>However, we will make a proposal in case you feel more comfortable to start with:</p> <p>Time for playing and exploring (15 minutes).</p> <p>Time for observing (teacher can support and guide this stage by making questions) (10 minutes).</p> <p>Time for discovering (15 minutes).</p> <p>Time for explaining and sharing observation and discoveries made (30 minutes).</p> <p>Time for experimenting (20 minutes).</p> <p>Time for designing and building (40 minutes)</p>



REQUIRED MATERIALS:	<ul style="list-style-type: none"> • wooden boards • surfaces of different textures: sandpaper, acetate, cardboard, cardboard boxes • bodybuilding or scotch tape • scissors • toy cars • toy dolls • toys with building material • robots
PREPARATION OF THE ENVIRONMENT:	<p>-The classroom is the reference space for the group; the aesthetic, order and cleaning component is essential to build a suitable environment.</p> <p>-Some space organization schemas allow children to work more autonomously, reducing the need of the teacher's constant intervention.</p> <p>-Well organized and displayed materials allow easier and more independent transitions from one to another activity and can arouse interest and promote children self-confidence.</p> <p>-Clear and shared rules facilitate positive behavioral references and a sense of safety.</p> <p>-Supportive atmosphere on the relational dimension fosters positive self-esteem and enhances intercommunication process among individuals.</p>
DETAILED DESCRIPTION: How the activity is implemented?	<p>-Start the activity describing a motivational situation, such as: In a small village in the province of Valladolid (you can change this with the place you want), the City Council will mend a beautiful viewpoint at the top of the mountain. From the viewpoint you can see the whole landscape, with rivers, forests ... it is so beautiful! and is quite close to the village. It happens that in our village there are many older people who find very hard to climb because the road is in very bad conditions. In order to facilitate an easy road for everybody to reach the viewpoint, the Mayor has asked children for help. You will have to find what features should be included in the design of the road so that all the grandparents can go for a walk and enjoy the landscape there.</p> <p>-Put the material in an accessible place where it will be possible for children to play, touch, explore and to get familiar with it.</p> <p>-Once pupils have explored and discovered the material characteristics, possible uses, etc, the teacher can ask some questions to guide the observation, such as: "what happens when we try to climb an icy ramp? When you walk along a ramp, is it easier when the ramp is long and not too steep or is it easier to climb a short ramp highly steep?". The teacher can accompany questions with different images.</p> <p>-At this stage, the teacher can also remind children that they have to build a road to the viewpoint of the village, with the materials they have in the classroom. That way children can start to inquire and think of possible ways.</p> <p>-After the common sharing of ideas in the assembly, pupils individually start to design how they want to build the road (they can draw on a paper, make a prototype) experiment and try different roads (longer or shorter, more or less inclined...)</p> <p>-Once the activity is finished, dedicate some moment to analyze, together with the pupils, so they can explain the work done, how much they enjoyed themselves, if</p>



	they learnt, what they liked the most, what was the hardest...
ROLES of the CHILDREN	<p>Organize groups with 4-5 members each and follow the detailed description of the activity, considering they will work as a group and not individually.</p> <p>Give each of them a role related to the use of the robot and establish clear and shared rules. Possible roles:</p> <ul style="list-style-type: none"> • Programmer: decides the sequence of commands and communicate with the one with Executer role. • Controller: observes what the programmer says and writes/draws the sequence of commands. He/she can give some suggestions. • Executer: clicks the button following the commands given by the programmer • Coordinator: vigilant of the order and respect of the turns • Spokesperson: the pupil that relates/reports/talks/ explains all the process to the plenary group.
ROLE of the TEACHER:	<ul style="list-style-type: none"> • He/she has all the necessary materials prepared and accessible for pupils. • Introduces the initial motivated situation to children and allows them to play and explore. • Supports the observation and encourages children to take the challenge, either by introducing questions or by offering them materials or other.
Extra resources	
Other remarks / Hints for the implementation	<p>ASSESSMENT</p> <ul style="list-style-type: none"> • For teachers- answer the following questions: Previously to the activity: What you initially plan pupils to learn. What you think pupils will learn. Afterwards: What pupils have really learnt • For pupils: Self evaluation (children can express if they liked it, how much they enjoyed the activity, maybe through some emoticon or stickers, or colors or by talking in the Assembly they use to having within their routines)
References, if any	Adapted from <i>Divulgación científica-UCCi-UBU Sábados de ciencia 2018-2019</i> (Universidad de Burgos)

