



COMPANION PLANTS - GROWING STRONG & TASTY GARDEN

MAIN THEME: THE ECO-SYSTEM

SHORT DESCRIPTION OF THE ACTIVITY:

In this activity, children are introduced to the concept of partner planting (allelopathy), which provides natural, mechanical and chemical protection to the garden from diseases and pests, it enhances plant immunity and provides abundant and organic crops. People in ancient times knew that coexistence of plants of different species contributes to protection of the garden against invasive insects and diseases, it enriches the soil with beneficial substances and is conducive to a favorable environment for the development of the whole ecosystem. The children will get to know the main combinations of partner plants by playing fun games with flash cards, movement, dialogue and design thinking, and finally put the new knowledge into practice by sowing or shaping compost bombs with plant seeds belonging to the plant families they choose.





TARGET AUDIENCE: 10-12 children aged 4-6 years

TEACHERS INVOLVED: No. 1 and No. 1 assistant
*If there are children with Special Educational Needs in the group-
each of them might need to have an assistant.*


WORKSHOP DURATION:
20 minutes for preparing the activity
30-40 minutes for the activity with the pupils





OBJECTIVES:

In this activity the children will:

- become familiar with the concept of plant-partners and how plants cooperate;
 - learn to recognize some of the major plant partnerships (guilds);
 - develop their gross and fine motor skills through motor activity and group play;
 - develop creativity and sense of collaboration by working with natural materials for planting the seeds of selected plants;
 - develop skills for systematic and system thinking and design approach;
 - enrich their vocabulary with new terminology.
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METHODS:


Presentation by the host.

Play Friends' Plants - dramatization and motor activity.

Research-based learning by researching plant information, recognizing and combining seeds.

Practical session for planting seeds or seedlings of favorable plant guilds (families).

Introduction of group rules and observance of their compliance.






PREREQUISITES:

The Workshop is most effective when it is conducted outdoors in the garden with the possibility of direct planting of the plants in the beds, but it can also be carried out indoors as the seeds are implanted into clay beads, which can then be moved into the garden and are placed in the plant beds.

WARNING: Safety & Security Rules

When working with seeds, give clear instructions that the planting material is not eaten and is not put in the ears or nose! If using the technique of seed application in clay-humus beads, it is desirable to take hygiene measures - aprons, covering the working tables, hand-washing after the work.





Quantities	Materials	Notes
1 set of laminated cards with selected combinations of friends-plants with a stick attached to them that can be stuck in the bed	<p>Picture maps showing useful combinations for each major plant (tomato, beans, cucumber, pumpkin, zucchini) and its partners</p> <p>On each map there is a picture and the name of a plant that will be planted in the garden.</p>	
1 card set for each plant to be set in the bed	<p>A set of cards with a photo and an inscription on each plant to work on - each child must have a map. The set must contain one or more plant-guilds (combinations) to allow children to combine during the game.</p> <p>It is desirable that the friendship plant maps have color coding (color frame) for each combination of partner plants that will be used in the activity.</p>	





Quantities	Materials	Notes
Sufficient for every child	Flipchart or separate sheets of paper and drawing materials to help children paint the plant guilds (families) who will help when planted together in the garden.	
Sufficient for every child	Seeds and planting material for partner plants in separate sections of the garden or separate seed pots.	
A collection of seeds to be used in the game and in planting.	It is important that the seeds are pre-synchronized with the available card - ie. each plant must have a corresponding card in the partner plant collection.	
Sufficient for every child	Clay soil, humus and a little water, soil and seed mixing pots, pots for arranging the accomplished balls with seeds.	





HOW TO CONDUCT THE ACTIVITY

PHASE 1 - GETTING STARTED: (Time: 10 minutes)


The teacher informs the children about the purpose of the activity and what they will learn.

The teacher sets the frameworks and rules of occupation.

Announce safety rules!

Teacher informs children that today they will explore the topic of friendship, and the plants also have friends with whom they live together, support each other and partner.

The teacher asks specific questions to identify the cognitive level and capacity of the children, their willingness to participate actively, to comment on the topic of partnership and plant life, what they know and what their ability and readiness to engage is.



PHASE 2 - DEVELOPMENT: (Time: 30 minutes)

Friendship Discussion - The teacher initiates discussion on friendship and partnership - Children respond and comment on questions such as: Do you have friends? Whoever has friends, please raise a your arms. Whoever likes to play with their friends - please raise your hands. How we feel when we are together with our friends - we are happy, we play, we talk (we communicate), we feel good, we laugh, and so on.

Together they come to the conclusion that having friends is wonderful - games are much more interesting, conversations, laughter, and even when you are sad or angry, it helps to have a friend. Friends support us when it is difficult for us. Then the teacher says that plants also have their friends - other plants they like to grow together and share a flower bed, to support themselves when they grow, to protect themselves together from harmful insects or bad weather.



PHASE 2 - DEVELOPMENT: (Time: 30 minutes)

The plants-friends - the teacher tells a story that from ancient times people knew how to plant plants that are friends and help each other when they grow up together in a flower bed.

Do you want to know which are the plant-friends?

Let each child choose one card from the set of individual plant maps.

Then the teacher calls the child holding the card with a leading plant (tomato) and starts telling the merry story that Mr. Tomato's friends are wanted ... gradually each child holding a map of a plant that is a partner of the tomato goes out and joins Tomato group. Every child uses their body to visualize the basic features of the plant whose map is drawn - e.g. tomato is a high and large plant that casts a shade, and the basil is low, does not like sun directly and has a strong aroma that chases the flies that damage the tomato. When planted in the neighborhood, these two plants are mutually supportive and protect each other. They are also a very tasty combination when we put them in a salad or pizza.






PHASE 2 - DEVELOPMENT: (Time: 40 minutes)

In this style, several basic combinations of partner plants are played.

This is a game that goes with a lot of humor and movement.

In the second part of the activity, children use the flipcharts on which they draw particular combinations of partner plants or themselves draw a combination scheme using the design cards of the first activity.

Following the scheme of the partner plants, the children plant seed or seedlings of supportive plant guilds in pre-prepared and determined beds.



PHASE 2 - DEVELOPMENT: (Time: 40 minutes)

An additional element to this activity is the planting of a small garden bed called Bee paradise, in which seeds or seedlings of various honey bees are planted to attract and support the useful insects of the garden - bees and ladybirds.

ALTERNATIVE: if the activity is indoors, planting the combinations of partner plants is done with the technique of humus and clay soil, which are subsequently taken out and planted in the garden.

When using this technique, it is important that the clay-balls with different seeds are arranged and marked with special signs in order to preserve and visualise the concept of combined planting of companion-plants.






PHASE 3- CONCLUSION AND EVALUATION (time: 10 minutes)

In the final phase, once again we summon the children in a circle and discuss the subject of friendship again, ask questions: Do the plants have friends too? Who are the friends of the tomato. e.g.? Whether they have helped the garden by planting plants that love to live together and help each other. And also - how did we do together, whether we helped each other? How do we feel when we help and we support each other working together.

The teacher takes notes and analyses the workshop; notes down suggestions and comments that come in the process of working with children; records some good ideas and guidelines for subsequent activities with this group of children.






EVALUATION OF THE LEARNING RESULTS

Learning objective: children know at least one combination of partner-plants.

Teacher's questions: Draw a garden with a tomato that we have planted inside along with tomato's friends - parsley, onions, beans, marigold.

Graphics: the overall background is a garden with a flower-bed in the centre, and the following plants on the right hand-side: tomato, onions, marigold with the corresponding names written below their pictures - which the child will see and draw inside the garden

Graphic elements:

- Garden as a background
 - Flower-bed
 - Tomato
 - Onions
 - Basil
 - Marigold
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NOTES

Companion plants charts as a base to create your own companion plants kards

<https://media.smilinggardener.com/files/images/articles/vegetables/companion-planting-chart.pdf>

https://21z6r9yf8x02eaff51wxrs58-wpengine.netdna-ssl.com/images/Companion-Planting_afristar.jpg

