

## Grandparents' Garden AAC Materials

### Materials needed:

- number tokens
- tokens with multiple objects (fairy tale characters, vegetables)
- board for arranging numbers
- tokens with mathematical symbols:  $<$ ,  $=$ ,  $>$
- picture of garden rows
- paper or cardboard
- markers or digital writing tools
- printer

**Key competence:** numeracy skills

### GENERAL OBJECTIVES

This set of tools provides essential visual and hands-on support for developing basic mathematical skills within a familiar and engaging context – grandparents' garden.

The material is designed to facilitate active learning of numbers through exercises involving counting, comparing, ordering, and solving simple contextualised problems.

Using vegetable illustrations and tokens enables a multisensory approach, helping children understand quantitative relationships and mathematical concepts in a concrete way. The activities promote learning through play and exploration and are accessible to all children, supporting a wide range of learning needs and communication styles, including for those who use Augmentative and Alternative Communication (AAC) systems.

Through group work, role-playing, and the manipulation of visual objects, children develop not only their logical-mathematical skills but also social and communication abilities. The material encourages critical thinking, collaboration, and the practical application of math knowledge in everyday situations.

## HOW TO USE IT

### 1. Introduction:

Present the children with the familiar context of “grandparents’ garden” and the aim of the activity – to develop skills in counting, comparing, and ordering numbers through play and exploration. Introduce the visual materials (vegetable images, worksheets, and tokens) that will be used.

### 2. Exploring the materials:

Show the children the vegetable tokens and talk about each type. Associate the images with their corresponding numbers, encouraging recognition and naming. Use visual support to



introduce mathematical concepts such as more/less, ordering, and equality.

### **3. Learning activities:**

Engage the pupils in hands-on tasks such as counting vegetables, completing number sequences, comparing quantities, and arranging them in order. These activities can be done individually or in small groups, tailored to each child's level. Use AAC (Augmentative and Alternative Communication) to support communication and the expression of answers.

### **4. Interactive math games:**

Organise role-playing games – for example, children can “plant” vegetables in an imaginary garden, associating each vegetable with a number or a simple math operation. Use tokens, figurines, or real objects to support learning through manipulation and symbolic play.

### **5. Reflection and extension:**

After the activity, have a group discussion about what the children learned, what they enjoyed, and what they found challenging. Encourage them to express ideas using simple sentences, supported by images or pictograms. The material can also be integrated into other learning areas (such as ecology or for nutrition education), reinforcing learning in a cross-curricular way.

## HOW TO CREATE IT

Creating visual materials for numeracy activities involves simple and effective steps tailored to children's needs. First, select relevant thematic elements – vegetables (carrots, onions, radishes, etc.), garden objects (beds/rows), and basic math concepts (numbers, symbols like  $<$ ,  $>$ ,  $=$ ). For each object or concept, create or download clear and meaningful images.

You can use free platforms like ARASAAC, Canva, Flaticon, Freepik, Pict Selector, The Noun Project to find or generate attractive and accessible pictograms. After selecting the images, you can add numbers, mathematical symbols, or key words (e.g., "more", "less", "count", "compare") for additional visual support.

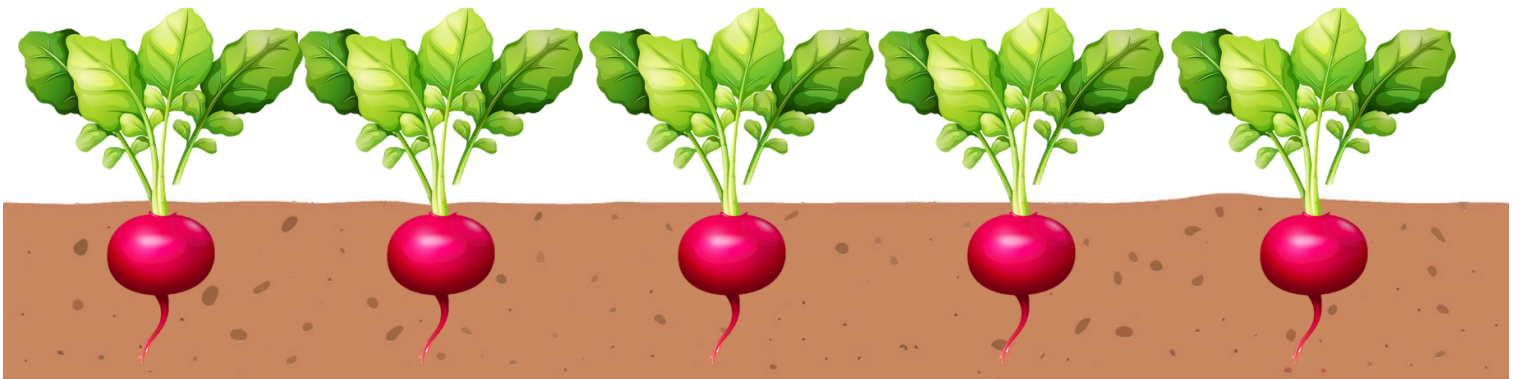
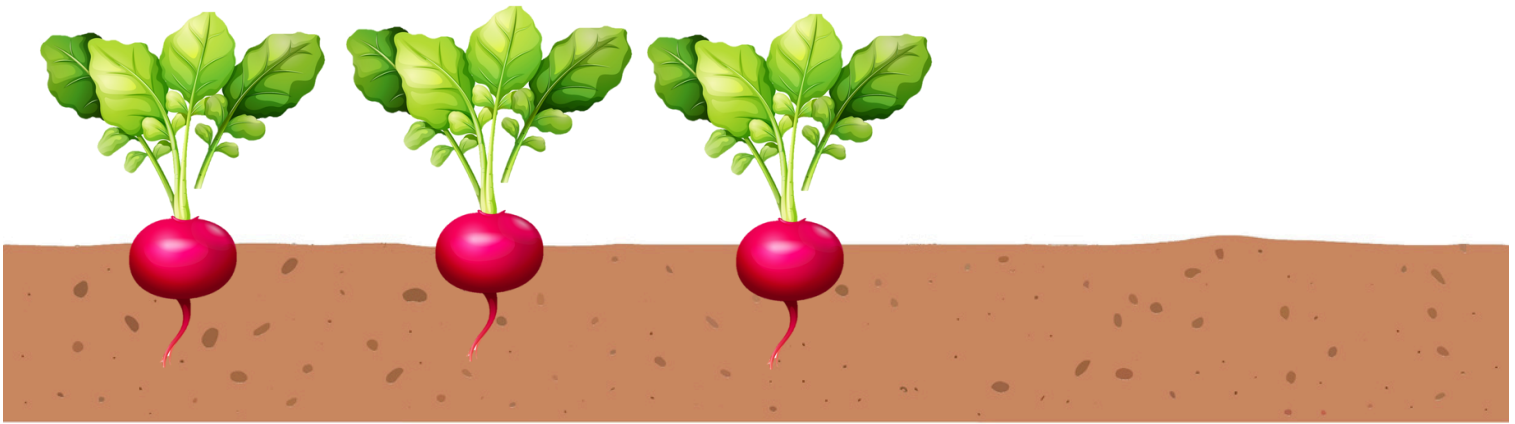
Print the materials on sturdy paper or cardboard and laminate them for repeated use. Alternatively, organise them digitally in an interactive document or educational app. Arrange the cards in an accessible format – for example, vegetable groups with number labels, comparison charts, or number sequences to complete.

Make sure the materials are clear, visually appealing, and easy for children to handle. You can colour-code or symbol-code the cards to support orientation and quick task recognition. These materials can be used in both individual and group activities, supporting the development of basic mathematical skills in a hands-on and enjoyable way.

# GIANT RADISH

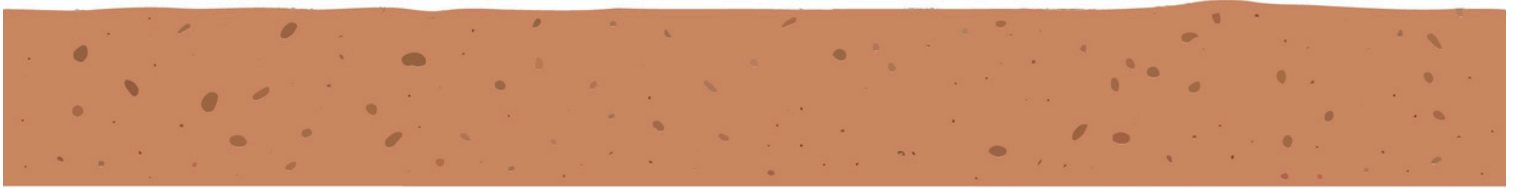
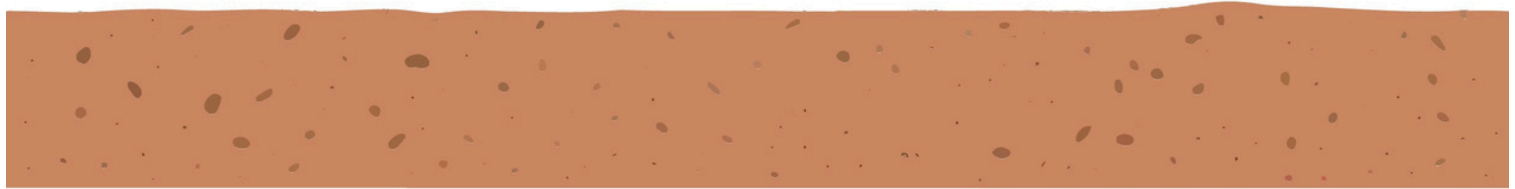
## Plant layers – Example problem representation

1. How many radishes are there in a row/ Which row has more radishes?



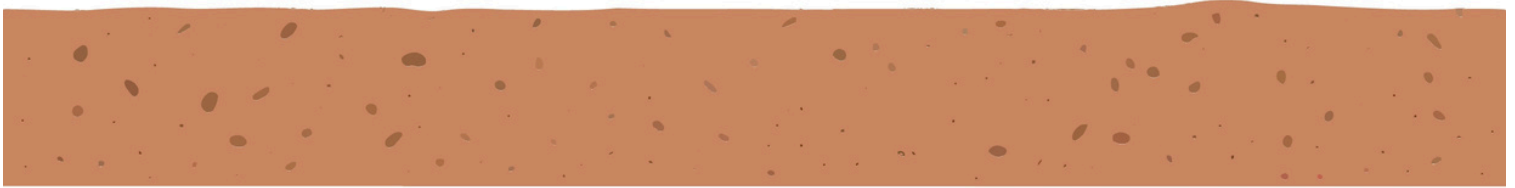
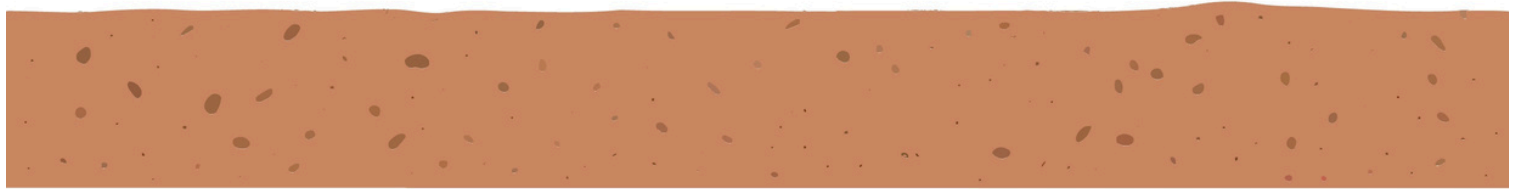
# GIANT RADISH

## Plant layers



# GIANT RADISH

## Plant layers



# GIANT RADISH

## Number arrangement board




# GIANT RADISH

## Number cards

0

1

2

3

4

5

6

7

8

9

10

11

# GIANT RADISH

## Number cards

12

13

14

15

16

17

18

19

20

21

22

23

# GIANT RADISH

## Number cards

24

25

26

27

28

29

30

# GIANT RADISH

## Mathematical symbol cards

$-$

$+$

$<$

$>$

$=$

# GIANT RADISH

Cards with elements for performing operations



# GIANT RADISH

Cards with elements for performing operations



# GIANT RADISH

Cards with elements for performing operations

