

GROWING MICROGREENS

KEY OBJECTIVES

1. **Grow nutritious micro-greens indoor within 2 weeks**
2. **Observe and understand the stages of seed germination**
3. **Experience the joy and appreciate the value of growing food**
4. **Develop healthy food choices**

INTRODUCTION

Gardening is a great way to observe and learn about the magic of life, along with absorbing vital scientific concepts. Being in touch with plants and soil fosters love and respect for the natural world, and we definitely protect what we love.

Growing our own food encourages healthy eating and teaches valuable life lessons like patience, responsibility, planning and organization.

An urban lifestyle deprives most people of the opportunity to engage in gardening. Growing microgreens is a great way to introduce a gardening experience for those who have no opportunity to do so, especially given the limitations of space and time in urban lifestyles.

This activity will guide children to grow micro-greens using readily available kitchen ingredients and encourage the reuse of plastic packaging.

Children will also get to observe the various stages of seed germination, explore the nutritional content of these little greens and the possible reasons for it.

GUIDING QUESTIONS

- **Have you grown your own food?**
- **Why is it hard to grow food in cities?**
- **What are some of the edible seeds you can find in your kitchen?**
- **What are microgreens?**
- **How are microgreens different from sprouts?**
- **What do you think it will taste like?**

MATERIALS/ PREPARATION

- 2 Plastic Trays (Food packaging/ take out tray) - one slightly bigger than the other
- Good quality garden soil - enough to cover an inch of the tray bottom
- Kitchen seeds - mustard, fenugreek, moong beans, coriander, fennel, dried peas, sunflower seeds etc. (Note- if using store bought vegetable seeds, ensure that it is organic and non GMO)
- Spray bottle filled with water

CONNECTION TO SDGS



TOPICS

BIOLOGY **GARDENING**

CROSS LINKS

Urban Cultivation, Controlled Environment Agriculture, Health and Nutrition, Climate Action

KEYWORDS

MICROGREENS **NUTRITION** **URBAN GARDENING**
GERMINATION **PLASTIC REUSE**

LEVEL

Elementary/ Primary

RESOURCE TYPE

PROJECT

INTENDED AUDIENCE SIZE

50

MODE OF DELIVERY

Small Group, Live Online

TIME FOR ACTIVITY

60 minutes

GROWING MICROGREENS

TASK

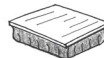
- Make 6-7 holes at the bottom of the smaller plastic tray. Fill with some garden soil up to an inch height and spread it out evenly. Sprinkle the seeds evenly on the soil and cover with a little more soil.
- Place the bigger tray under it to collect drainage water. Keep on a warm spot like your kitchen bench.
- Lightly water the soil by misting with a spray bottle.
- Label your tray so that you know when and what you have planted.
- Cover the tray for a few days till the plant comes out.
- Water every day as needed. Check soil moisture first by touching with your fingers. Avoid overwatering.
- Once the plants are 2-3 cm long, put it next to a sunny window. If the leaves were yellow, they will now turn green.
- The micro-greens will be ready to cut and harvest in around 14 days.



STEP 1



STEP 2



STEP 3



STEP 4



STEP 5



STEP 6

FOSTERING DISCUSSION

Discuss the process of seed germination. What are Cotyledons? Do we harvest microgreens in the cotyledon stage? Why do we cover the tray for a few days after we plant the seeds? (The baby plant grows longer in its search for sunlight) Why are the initial leaves of the plant yellow? (Lack of sunlight) Why are microgreens so nutritious?

SAFETY INSTRUCTIONS

Good quality seeds should be used. It is better to avoid seeds commercially packaged for gardening since they may contain fungicide, animal repellents etc. that are meant for outdoor gardening. Microgreens are harvested at a very early stage and these seeds may be detrimental. For purposes of this activity, easily available kitchen seeds will do. It is advisable to consume the greens soon after harvesting, given its low shelf life Always wash your hands after handling soil.

POSSIBLE EXTENSIONS

- Grow microgreens without soil by placing seeds on wet tissue paper.
- Explore different varieties of microgreens.
- Try recipes that incorporate microgreens.
- Connect the seeds you eat to the plants that produce them.
- Observe the effect of temperature on microgreen growth and research the optimum stage to harvest them.(for older children)

RESOURCE LINKS FOR THE FACILITATOR

<https://homemicrogreens.com/what-are-cotyledons/>

<https://grocycle.com/how-to-grow-microgreens/>

AUTHOR

Yoshida Menon and Preveena Nandakumar