



Indoor Gardening Activities For Any Classroom

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MASS. FARM TO SCHOOL OVERVIEW

Mass. Farm to School strengthens local farms and fisheries and promotes healthy communities by increasing local food purchasing and education at schools.

Get involved through our:

- Professional learning opportunities
- Networking
- Policy/Advocacy
- Communications



Presenter

Heidi Ragno, M.Ed

I am a science teacher in my 13th year of teaching, currently teaching at West Springfield High School

I am a mother of two kids (ages 7 & 9), love hiking, gardening, spending time outdoors

Experience teaching environmental science & advisor of the “Conservation Club”



Today's Agenda

1. What are your goals?
2. What are your biggest challenges?
3. Simple germination labs
4. Getting started gardening
5. Ideas to save space, get new supplies, ideas for project based learning through gardening



Introductions: Who are you & what are your goals?



Before we begin, I would like to know:

- Who are you? Where do you teach?
- What ages and grades are your students?
- How familiar are you with gardening in the classroom?
- What are your goals for utilizing this information in the classroom?
- What are the challenges you are facing?

I have found even the simplest concepts about plants can be new and fascinating for students. In this picture, we have carrots in a pot and an amaryllis bulb, which we measured as it grew

Roots & Shoots

Waking up seeds - do students know how seeds germinate? Do they know the parts of a plant?

You can have seed germination races. Easy to use wet paper towel in a petri dish or clear plastic baggies



Some of the best seeds:

- Radishes
- Grass
- Beans
- Peas
- Corn



You can experiment with the effect of pollutants on germination, types of seeds, etc

What do you need?



**Seeds of your choice!
Soil & containers**

- **Windowsill**
- **Heat pad/mat OR heat lamp**



Examples of activities:

[Waking Up Seeds Lab](#)

[Do Pollutants Affect Seed Germination?](#)

[Root Races Lab](#)



All of these require limited amounts of supplies, limited time - you do not need to give up a lot for these lessons!



You can experiment with the effect of pollutants on germination, types of seeds, etc

Beyond seeds: Gardening



Gardening can teach students so many things: life cycle of plants, the interconnectedness of our environment, where our food comes from, pollination

If gardening in the classroom, I recommend a garden enclosure, the plastic will help keep the plants from drying out & keep consistent temperature

Weekends, days off, vacations... prepare a plan for watering!

Plan the garden



What do you want to plant?

Do you want something that will sprout slowly or quickly?

Will you have a place to plant outside once the plants are ready to transplant?

Fast growing plants with minimal space: Microgreens, herbs, lettuce

Gardening... what to do when plants get bigger?



I start my seeds in the seed starter trays and salad containers with the plastic lids

Basic soil for seed starting works fine - but need a plan for transplanting when they grow

One the roots are growing through, it is definitely time to transplant! Can move to bigger containers if need be

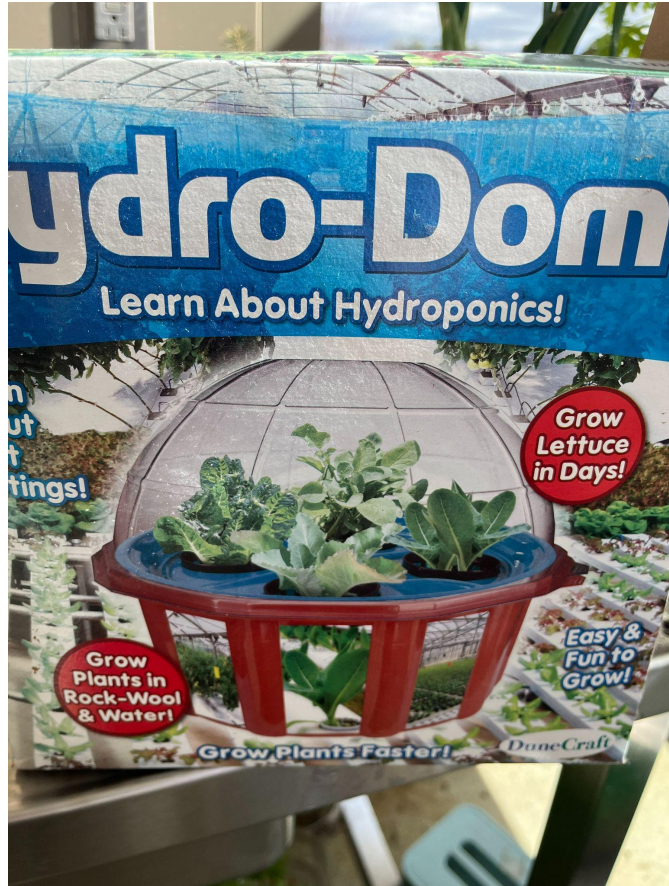
Ideas for the garden



Be creative! I often bring in my plants from my garden, such as marigold. Then, when the seeds are ready to harvest, you can show students how to harvest seeds - do not need to buy them!

So, this year, I have seeds we will plant and now they can see the full life cycle, even if we don't see the full cycle within our class time frame

Have fun with it!



Decide how involved and committed you want to be. If you want to show students how to start seeds, notice changes in the germination rates, grow plants from seed to full plant, harvest... the full life span of most plants means you may not be able to harvest until the fall

If you do have an outdoor space available at your school, try planting a garden, or even a perennial garden. Getting students involved in the planting process is a lesson in itself!

Have fun with it!

Try a hydroponic system - tower can save lots of space. Nutrients are simple to add, end up with a flourishing garden space

Build raised beds for a garden... Build a perennial garden!



HOW?

Raise \$ through a club

Try applying for grants!

Many district grants, MFTS, etc!

Gardening tips & advice

Start small! ANYTHING students do with seeds and plants is probably new to them - it is all worth doing, no matter how simple

Try incorporating these ideas into your curriculum you are already using: scientific method, etc

Try something you already have access to: if you have any gardening supplies at home, bring them in. If not, start with simple, low-cost materials and learn through your own experiments

If you are passionate about getting certain equipment I encourage you to apply for grants. You can raise funds through clubs, or simply ask your administration! Many are supportive of projects that involve students

Be sure to plan something that will create lasting impact... do not plant a garden that will die in the summer. Perhaps build upon a perennial garden using native plants. Last spring, my environmental science class planted flowering perennials around an existing space and created a fruiting area with blueberries and raspberries, which will hopefully serve the school for years to come.

Our school groups collaborate to plant seeds in the spring and we sell the seedlings as a fundraiser to earn funds to buy more seeds/materials for the following year. Students experience planting and growing, yet the plants will be taken home to be planted elsewhere, and we raise funds for future endeavors

ADDITIONAL RESOURCES & LEARNING OPPORTUNITIES

- Mass. Farm to School - www.massfarmtoschool.org - Subscribe to our newsletter and stay up to date on upcoming webinars and other professional learning opportunities.
- [HOTM for Educators](#) is a monthly program for elementary and secondary teachers that features a crop each month. Participants receive a newsletter that includes crop history, curriculum, garden activity, an idea of the month, event calendar and book suggestions. Sign up [here](#).

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Shaloh



Springfield

