


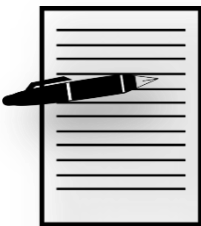









Summary

Growing hydroponic basil by using struvite

	<p>Target age</p> <p>Age 15 and over</p> <p>Level of difficulty</p> <p><input checked="" type="checkbox"/> Easy <input type="checkbox"/> Medium <input type="checkbox"/> High</p>	
	<p>Key words:</p> <p>hydroponics, recycling, circular economy, basil plant, struvite</p>	
	<p>Abstract of the activity:</p> <p>Hydroponics cultivation is an innovative educational and learning tool suitable for pupils of all ages. The laboratory trial consists in the hydroponic cultivation of basil plants by using recycled mineral water plastic bottles. A dosage of struvite (10 and 100 mg/L) is supplied at the basil plants, in order to evaluate the efficiency of struvite. After a period of cultivation, about 3 weeks, the plants are removed by the hydroponic system and the fresh and dry weights of each treated plants are measured. This laboratory experience will develop a variety of interdisciplinary and practical skills in the disciplines of plant biology, ecology and sustainability, chemistry, nutrition, water, alternative energy, technology and mathematics.</p>	
	<p>Learning Goals</p> <ul style="list-style-type: none"> • plant biology, • ecology and sustainability, • chemistry, • nutrition, • alternative energy, • circular economy 	

Summary

	Specific Abilities
	Cross-curricula Links-
	Prerequisites - <i>Knowledge and skills necessary for carrying out the activity</i>
	Time requirement
	Learning and Teaching Support Materials - What you can find in the toolkit
	Authors

- Plant biology
- Sustainability
- Chemistry
- Hydroponics
- Recovery waste

- Ecology/Environment
- Biology
- Chemistry
- Circular economy

- Basic biology
- Basic Chemistry

- 2 h for preparation of basil plants and their acclimatization
- 2 h for preparation of hydroponics system
- 2 h for measurements basil plants at the end of the trial

Instruments: *scale*

1. Lab Procedure/s- Modules 1-
2. Students' Cards (1)
3. Tutorial Video created by students after this activity
4. Evaluation grids

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