

# The biodiversity in the garden

1

## Overall aims:

- Coming in touch with nature;
- Developing observation skills;
- Formulating and testing hypotheses;
- Making predictions.

2

## Vocabulary – keywords:

Nature, footprint, experimentation

3

## Sustainable abilities developed:

- Systematic thinking;
- Anticipatory competency;
- Normative competency;
- Strategic competency;
- Critical thinking competency.

4

## Pillars of sustainability included:

Environmental sustainability

5

## STEAM domains:

Science

6

## Teaching methodologies/activity outline:

The activity consists of observing, like a scientist, the footprints of the animals in the school garden.

### Before the experiment:

Task for the pupils→ Ask the children to take some shallow aluminum trays that they have already used at home - explain to the children that it would be important not to buy a new aluminum tray, but to bring used ones to school that would otherwise be thrown away. If



Co-funded by the  
Erasmus+ Programme  
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

	<p>some children do not have aluminum trays at home, other children can share them or bring two to school.</p> <p>Task for teachers→ This activity involves the use of sand.</p> <p><b>The experiment:</b></p> <p>Ask the children to pour wet sand into trays and place them in various places in the garden. Once back in the classroom, explain to the children that it will take patience before they see animal footprints. Then, every morning for a week, the children will go out into the garden to observe the changes in the sand and moisten it again. The children are asked to formulate hypotheses about what they might see over the next few days and, with the help of the teacher, each time they notice changes, they will document everything through drawings/photos which will then be attached to a large poster board.</p>
<b>7</b>	<p><b>Expected learning outcomes</b></p> <p><b>The child will be able to:</b></p> <ul style="list-style-type: none"> <li>• Interiorize the value of patience;</li> <li>• Recognize animal's footprints;</li> <li>• Act like a scientist.</li> </ul>
<b>8</b>	<p><b>Assessment</b></p> <ul style="list-style-type: none"> <li>• <b>Initial assessment:</b> assessing what children already know about the target topics (e.g., "Do you know how scientists usually act?")</li> <li>• <b>Middle assessment:</b> assessing what pupils are learning during the experiment</li> <li>• <b>Final assessment:</b> evaluating whether pupils have achieved the learning goals through systematic observation.</li> </ul>
<b>9</b>	<p><b>Equipment and materials to be used in learning unit (tools, ingredients etc)</b></p> <p>Shallow aluminium trays; Sand</p>
<b>10</b>	<p><b>Kind of setting - lab, kitchen, outdoor etc.</b></p> <p>Outdoor (garden)</p>
<b>11</b>	<p><b>References - source:</b></p> <p>Litton, J. &amp; Margan, P. (2020). Il mio pianeta: ecologia. Giunti Editore.</p>

