

Water
Raingarden
Stormwater management
Flood meadow
Wetland
Water harvesting systems
Floating garden
NBS
Hydrological cycle

Learning Outcomes (who does what how)	Assessment Criteria (who does what how to what extent)
Learner recognizes the basic elements of hydrological cycle	Learner <b>identifies</b> main hydrological factors in the urban environment such as stormwater, groundwater, flooding and drainage systems and <b>recognizes</b> the basic flow of the water and how soil, water and air are connected in urban environment
Learner uses sustainable and appropriate techniques and materials in maintenance and landscaping in urban environments to support hydrological cycle	Learner <b>uses</b> maintenance and landscaping materials and techniques and <b>understands</b> their factors affecting ecosystem services and <b>takes into account</b> local urban biodiversity through hydrological cycle according to guidelines. <i>Learner identifies variety of local habitat factors affecting growth such as water, soil and micro-climate in urban environment.</i>
Learner familiar with nature-based solutions in urban environment while landscaping and maintaining the structures such as rain beds, floating gardens, flood meadows and comply with quality and safety regulations.	Learner builds and maintains the urban green site by <b>considering</b> stormwater, groundwater and the hydrological cycle in NBS and <b>understands</b> hydrological factors affecting local plants growth in nature-based solutions sites. Learner <b>recognizes and reports</b> local harmful invasive species while doing building / maintenance work in urban greening sites. Learner <b>removes</b> invasive species according to plan and legislation.
Learner explains purpose and techniques of one's own actions towards well-being, to team members and to customer in service-oriented and cooperative manner.	Learner <b>describes</b> the ones own action and brings out its effects to the green space and people. Learner <b>communicates openly</b> with the team and customers by giving information and answering to the questions according to the one's own tasks.
Learner is aware of one's own well-being at work consider the health and safety.	Learner plans one's own work with consideration, by taking care of health and safety. Learner builds and maintains sequential, ergonomic and in fluent manner following health and safety rules.

Soil/ substrates
Vegetated roof soil or substrates
Green wall substrates
Soil biodiversity
Soil food web
Carbon cycle
Nutrient cycle
NBS

Learning Outcomes (who does what how)	Assessment Criteria (who does what how to what extent)
Learner builds and maintains urban green sites by using healthy and appropriate soil and substrates considering different needs and microclimates of plants.	Learner <b>recognizes</b> different types of soils in the urban green site and assess visually the suitability of the growing medium for the plants used; <b>recognizes</b> how soil, water, nutrients and air are connected for environmental well-being; identifies variety of local plants and soil factors affecting their growth in urban green sites. Learner <b>takes</b> a soil <b>sample</b> in the manner defined in the general quality requirements for maintenance and compare the results of the sample to the recommended values and <b>prevents</b> the release of the contaminants and chemicals generated, while doing maintenance and landscaping, work into the environment
The learner understands the basics of the importance of the soil microorganisms.	Learner <b>identifies</b> different beneficial and harmful microorganisms in the soil, <b>uses</b> soil conditioners and methods that support the structure of the soil, the living organisms in the soil, water management, nutrient economy and carbon sequestration and <b>builds and maintains</b> the urban green site by considering basic carbon cycle in the soil.  <i>Learner <b>identifies</b> variety of soils and substrates and their factors affecting ecosystem services and biodiversity. Learner <b>chooses appropriate</b> maintenance and building techniques to support ecosystem services and local biodiversity in the soil.</i>
Learner recognizes local harmful invasive species and handles them according to the legislation.	Learner <b>follows</b> the list of alien species and comply with instructions in the removal of invasive alien species, <b>recognizes</b> and reports local harmful invasive species while doing building / maintenance work in urban greening sites. Learner <b>removes</b> invasive species according to plan and legislation.
Learner complies with quality and safety regulations and is able to explain purpose and techniques of one's own actions to customers.	Learner <b>understand</b> climate change as a phenomenon and the impact of human actions on it determines the most common climate-related growth factors and <b>finds information</b> on the valid laws and regulations applying to the horticultural sector and works in compliance with them. Learner communicates openly with the team and customers by guiding and advising them towards holistic well-being. Learner plans one's own work with consideration, by taking care of health and safety.  Learner <b>understands</b> how different types of soils and guides the team how soil, water and air are connected in the urban green site for holistic, environmental well-being. Learner <b>recognizes</b> and guides the team to remove local harmful invasive species while working in urban greening sites according to plan and legislation. Learner <b>selects</b> for the team variety of maintenance and building materials and understands their factors affecting ecosystem services and biodiversity. Learner <b>chooses</b> appropriate maintenance and building techniques for the team to support ecosystem services and local biodiversity.
SFW: Learner will gain basic knowledge in theory about making high-quality bioactive compost and learn to use compound biological microscope.	Learner <b>will be able to examine</b> soil and distinguish good compost from a low-quality one by using sensory and microscopic methods. Learner <b>will be able to prepare</b> compost extracts and examine them under a microscope. Learner <b>will be able to evaluate</b> the success of compost or compost liquids by using a microscope.

Vegetation
Invasive species
Integrated vegetation, roofs and walls
Indigenous plants
Fin E taimi
NBS

Learning Outcomes (who does what how)	Assessment Criteria (who does what how to what extent)
Learner recognizes most of the common local plants and is familiar with scientific names and purposes of decorative plants in the urban environment.	Learner <b>recognizes</b> different types of vegetation and is familiar with local plants in plans and documents while building and maintaining the urban environment and nature sites; <b>identifies</b> decorative plants used in green areas, knowing their (Finnish) names, scientific families and species. Learner <b>identifies</b> the different nature types and understands the impacts of the layered structure of the vegetation
Learner describes the factors affecting plants growth	Learner <b>identifies</b> local habitat factors affecting plants growth such as water, wind, light, microclimate, growing media and nutrients. Learner <b>determines</b> the most common climate-related growth factors, <b>considers</b> the surrounding vegetation and landscape and the built environment when carrying out maintenance work, <b>takes care</b> of the ecological sustainability of the material and nutrient cycle and <b>applies</b> knowledge of the biology and physiology of plants in their work
Learner plants and maintains plants by handling them economical and sustainable way.	Learner <b>recognizes</b> and reports local harmful invasive species while doing building and maintenance work in urban environments and nature sites. Learner <b>protects</b> the vegetation to be preserved according to the guidelines given and ensures the quality of plants, <b>protects</b> and maintains the vitality of the plants on site during intermediate storage and construction and <b>ensures</b> that the plant protection measure is ecological to minimize harmful effects on the environment
Learner is familiar and works with nature-based solutions in urban environment and can interpret the plans and documents used in landscaping and maintenance.	Learner <b>considers</b> the impacts of garden plants in the maintenance of biodiversity and carbon sequestration, <b>considers</b> the impact of horticultural plants in maintaining biodiversity and carbon sequestration, <b>carries out</b> the currently required maintenance, considering the development stage of the plant population and <b>chooses</b> a suitable machine and device for the situation and uses them.
Learner is aware of one's own well-being at work consider the health and safety.	Learner plans one's own work with consideration, by taking care of health and safety. Learner builds and maintains sequential, ergonomic and in fluent manner following health and safety rules.

Materials, techniques
Recycled materials
Recyclable materials
Vegetated roofs and walls
Irrigation systems
Biochar
NBS

Learning Outcomes (who does what how)	Assessment Criteria (who does what how to what extent)
Learner identifies raw materials and uses them in a responsible way by considering reuse and recycling.	Learner <b>recognizes</b> raw materials and works sustainably with the materials and products used in urban green sites given in plans and documents, <b>calculates</b> the amount of the required materials, <b>minimizes</b> the generation of waste and sort and recycle waste material, promoting the circular economy, <b>selects</b> raw materials that are suitable for further processing of the product, works with the used materials safely and cost-effectively, considering the working properties of the material and <b>improves</b> waste sorting and recycling and prevents usable materials from ending up in landfills.
Learner uses ecologically sustainable materials in maintenance and landscaping work in urban environment.	Learner <b>recognizes</b> and can promote the benefits of sustainable materials and their factors affecting ecosystem services and biodiversity in maintenance and landscaping, <b>understands</b> ecologically sustainable products and the local context, where the products are made and why they are chosen for the job site. Learner <b>recommends</b> products and materials with a small environmental burden, <b>explains</b> to customers the importance of material choices from the point of view of sustainable development and <b>is familiar</b> with the labelling and understands the contents of the (safety) data sheet
Learner identifies sustainable and small environmental burden techniques and efficient use of them and works in accordance with them in maintenance and landscaping work in urban environment.	Learner <b>complies</b> with the quality and sustainable development goals of the workplace and the horticultural sector, <b>chooses</b> sustainable maintenance and landscaping techniques that support environmental well-being of urban green sites and the worker itself and <b>understands</b> the business principles of the workplace and their impacts on promoting socially, economically and ecologically sustainable development.  Learner <b>chooses</b> independently appropriate working methods, work sequences, uses tools and works safely, <b>acts</b> in a resource-efficient manner and proceeds logically in their work, considering the following work stage and <b>becomes</b> familiar with and knows how to work according to a technical plan or method (e.g., installing play equipment, climbing or working at height)
Learner is aware of one's own well-being at work consider the health and safety.	Learner plans one's own work with consideration, by taking care of health and safety. Learner builds and maintains sequential, ergonomic and in fluent manner following health and safety rules.

<b>Energy saving, machinery</b>
Electrical machinery
Mechanical machinery
Smart landscaping software
Emission free tools and machinery
Silent site tools
Smart lighting techniques

<b>Learning Outcomes</b> <i>(who does what how)</i>	<b>Assessment Criteria</b> <i>(who does what how to what extent)</i>
Learner identifies different energy saving methods and machinery and the uses them in one's own maintenance and landscaping work in urban environment.	Learner <b>recognizes</b> different energy saving methods such as reducing energy consumption, using machinery only in necessary job duties, avoiding unnecessary driving and carries out site logistics according to the plan  Learner <b>knows</b> how to reduce energy consumption by <ul style="list-style-type: none"> <li>switching off the machine when not in use</li> <li>using the machinery economically by choosing the right fuel</li> <li>maintaining the machine properly.</li> <li>ordering only the amount of material needed</li> <li>handling materials, products and plants so that they can be recycled or used at another site</li> <li>keeping the site tidy</li> <li>using the chemicals safely.</li> </ul>
	Learner <b>aims</b> to protect air quality by reducing green house gas emission and <b>aims</b> to understand habitat destruction and negative impacts on holistic wellbeing.
	Learner <b>selects</b> and uses emission-free tools and machines, <b>drives</b> and operates them in different conditions and sites as required by legislation. Learner <b>uses</b> the variety of emission free tools in maintenance and landscaping and explains the benefits to customer, noise, dust and pollution reduction, <b>chooses</b> and uses the tools and machines required in the task, considering their emissions and energy efficiency, <b>takes care</b> of the daily maintenance of machines and devices and <b>complies</b> with the occupational safety instructions and regulations and see to their occupational safety.
Learner is aware of one's own well-being at work consider the health and safety.	Learner plans one's own work with consideration, by taking care of health and safety. Learner builds and maintains sequential, ergonomic and in fluent manner following health and safety rules.

<b>Well-being</b>
The urban ecology
Well-being and effects of green spaces
Pollinators and wildlife
Ecosystem services
The ecological cycle
NBS
Green care

<b>Learning Outcomes</b> <i>(who does what how)</i>	<b>Assessment Criteria</b> <i>(who does what how to what extent)</i>
Learner improves and supports ecosystem services and local biodiversity by choosing techniques and materials in maintenance and landscaping in urban green sites.	Learner <b>identifies</b> variety of maintenance and building materials and their factors affecting ecosystem services and biodiversity and <b>considers</b> in the urban green site some of the basic hydrological, nutrients and carbon cycles by in landscaping and maintenance. Learner <b>identifies</b> variety of local plants and factors affecting their growth in urban green sites, <b>recognizes</b> and reports local harmful invasive species while doing building / maintenance work in urban greening sites and <b>removes</b> invasive species according to plan and legislation.
Learner recognizes the basics of holistic well being.	Learner <b>chooses</b> appropriate maintenance and building techniques to support ecosystem services and local biodiversity, <b>recognizes</b> different types of soils in the urban green site and how soil, water and air are connected in the site for environmental well-being. Learner <b>identifies</b> the basics of environmentally harmful practices in urban environment, <b>knows</b> alternative solutions to reduce consumption and environmental impact in the environment and <b>use a wide range</b> of knowledge about the activity being advised and the relevant laws and regulations
Learner explains purpose and techniques of one's own actions towards well-being, to team members and to customer in service oriented and cooperative manner.	Learner <b>understand</b> the basic elements and conditions of nature-based welfare services, <b>describes</b> the ones own action and brings out its effects to the green space and people and <b>uses</b> appropriate advice material for the target group. Learner <b>communicates</b> openly with the team and customers by giving information and answering to the questions according to the one's own tasks, <b>advises</b> customers on how to make environmentally friendly and resource-efficient choices in their activities and <b>gather</b> feedback to improve their activities.
Learner is aware of one's own well-being at work consider the health and safety.	Learner <b>plans</b> one's own work with consideration, by taking care of health and safety and <b>builds</b> and <b>maintains</b> sequential, ergonomic and in fluent manner following health and safety rules.