



Name of the Activity: Smart soil irrigation system as an example of smart agriculture

	Outcomes	Teaching and Learning activities	Assessment
	Having taken this activity, the participants will be able to:	The participants will be taught to achieve this specific outcome through the following learning activities:	The participants will be assessed on their achievement of this specific outcome through the following assessment tasks:
Blended Learning Format - Face-to-face	Understand the importance of smart agriculture for sustainability	Presentation on the role of technology in agriculture, including discussions and videos on sustainable farming	Group discussions evaluating students' understanding of the concepts
	Identify key smart agriculture technologies (e.g., sensors, drones, IoT)	Demonstration of different smart agriculture tools and their functions, hands-on activity with mock technology	Practical assessment where students identify and describe smart agriculture technologies
	Analyze the benefits of smart agriculture technologies for water and resource management	Group work: Students evaluate the impact of smart technologies in improving resource use (water, fertilizers)	Written report analyzing how smart technologies reduce resource wastage
	Design a simple smart agriculture solution for monitoring crop health	Students brainstorm and plan a system using sensors and data analytics to monitor plant health	Group project to develop a mock setup and present their smart agriculture solution
	Evaluate the economic and environmental impact of smart agriculture	Research and group discussion on the long-term impacts of smart technologies on farming economics and environmental health	Presentation on findings, followed by a class debate on the pros and cons

STEM for inclusive Schools
Learning Outcome Matrix



Interactive Learning Tasks, Gamification / Nudging / Online	hint to the importance of dealing with climate change	H5P-task – true/false	Assessment via interactive tasks
	learn basic smart soil irrigation instruments	H5P-task – fill-in the gap	Assessment via interactive tasks
	be aware of importance of sustainable agriculture	H5P-task – multi choice	Assessment via interactive task
	usage of free licenced Tinkercad.com web site	H5P-task – true/false	Assessment via interactive task