



# SCOPE OF UNITS

## Green Your School

Grades 7 – 9

StartUpRoots, R.A. (“SUR”) curriculum addresses social, economic, and environmental issues. SUR works with schools to satisfy the criteria set forth by the Ministries of Environmental Protection and Education for green school certification .

- The project will involve at least one community, other than the school's students and staff members.
- It includes economic planning so that it can operate in the future, allowing for its continued existence for at least one more year.
- It generates revenue or economic savings for the school or target audience.
- It helps reduce the use of resources in the school or by the target audience.
- It reduces environmental damage.
- It has an impact on the promotion of environmental-pedagogical values in the school's program for years to come.

SUR curriculum is an interdisciplinary, experiential, authentic attempt to engage students in science and technology, raise awareness of issues that will impact their generation and future generations, develop 21st century skills, and inspire life-long learning and a sense of responsibility. Its hydroponic farm and teacher training enables teachers to use the farm as a platform for additional lessons. What we have developed to date is fully customizable, scalable, and adaptable to middle school through high school classes.

Topic	Activities	Integration
Introduction to sustainability: renewable and non-renewable resources; food and water justice	The sustainability challenge: global issue; local application	Environmental science, Language Arts
Scientific method, laboratory notation	growing sprouts	Science (botany, biology, laboratory skills), Language Arts
Food Safety: the study of bacteria, viruses, and how to address them	germ kit; handwashing control; growing bacteria; how to write a lab report	Science (botany, biology, laboratory skills), Language Arts (sequencing)

Systems and processes in living beings: ecosystems, health, disease, nutrition, environment; waste	run a leafy green system and microgreen system from seed to harvest	Science (biology, life sciences, nutrition) Language Arts
Jewish laws (halachot) pertaining to the Land of Israel	application of laws to harvests	Judaics (שׂוֹמְרֵי קְדוּשָׁה), Language Arts (debate), History
Pesticides: where are they, what is their impact?	research, conduct polls, collect data	Environmental science, health, Judaics, data science
Consumption and Waste: Impact of food habits on environment	campus tracker and recycling program; reduce meat consumption, reduce use of plastics, recycle paper and compost	Environmental science, data collection, Judaics
Water: What's in it, where does it come from, is it scarce, is it renewable	distillation, research, pH and EC testing, hydroponics, desalinization	Science ( technology, laboratory skills, scientific method, climate and environment)
Nutrition and Health: Attitude and Habits	food journal, evaluation of natural and processed foods, sugar, Shabbat and holidays	Science: (biology, chemistry, laboratory skills), Jewish laws pertaining to health, nutrition, brachot, Judaic (holidays)
Photojournalism, PR, Marketing	data collection, blog, reporting, marketing, advertising	Computers: digital graphic design, software apps., spreadsheets; Language Arts and research skills.
Research and advocacy on health and environmental benefits of soilless farming. Public speech culmination: podcast, Zoom, TED-Jr., etc. Also, written Op-Ed for an Internet site. Can be done in any language	Public speech culmination: podcast, debate, TED-Jr., written Op-Ed for an Internet site. Can be done in any language	Science, Language Arts, Social Studies, Geography, Foreign Language
Electronic and robotic controls for soilless systems	coding, product design, robotics	Science: physics, electronics, project design, scientific method, laboratory skills Language Arts: non-fiction writing skills
Business skills and Entrepreneurship: what is an entrepreneur, mission statement, budgets, market research, networking, legal concerns	marshmallow tower, system management organization, event planning, sales	21st century skills, green school compliance, Judaics