



Program Overview and Expectations for Participating Afterschool Programs:

Welcome to SPIRALS, an exploration of personal and community sustainability and science learning. The SPIRALS curriculum was developed as part of a research project at the University of New Hampshire looking to better understand rural youth attitudes towards learning science. SPIRALS is a project based curriculum that is flexible and allows teachers and mentors to guide learners through a study of sustainability by getting to know the people and places within their community better, and to use technology and maps to help tell their stories.

A SPIRALS program can be run in school or during an afterschool program by staff with support from researchers and collaborators at the University of New Hampshire. This overview describes the expectations needed to successfully run a SPIRALS project.

The University of New Hampshire and its collaborating partners will provide participating sites with program guidance including:

- 1. Mentor Training** – in person or distance learning based video training in the SPIRALS curriculum and activities with online modules designed to give an overview of and help plan different lessons.
- 2. e-Spirals Technical Support** – instruction, access and technical support for e-SPIRALS, the SPIRALS online mapping platform developed for this project.
- 3. Site Support** – support in the form of site visits, email and phone consultations to answer questions and help plan lessons within a community of practice in sustainability and community mapping.

Participating sites will need to provide:

- 1. Dedicated Staff** - Provide dedicated volunteers or staff to serve as mentors who will be trained in the SPIRALS curriculum and implement the program with youth. Training includes 1-2 workshops and online training and planning modules.
- 2. Regular Programming** - Provide regular programming for the youth in your class or afterschool group. A SPIRALS experience for afterschool takes about 15 hours of programming and is suitable for many afterschool programs. A longer version is available for schools and afterschool program who may wish a more in depth experience. Programs could be 7 weeks meeting 2 hrs/wk or for 14-18 weeks meeting one hr/wk or other configuration that suits your program structure.
- 3. Sharing of group work** - Commit to sharing the work of the group at some level through uploading student work onto the e-SPIRALS online mapping platform.
- 4. Youth Survey and Parent Consent** – As part of the project research participating youth and parents will need to give consent, via a signed form and youth will need to complete a participation survey in the beginning and end of the program. Any youth can opt out of participating in the research.
- 5. Community Access** – Provide field trips into the community or school yard (real or virtual) or bring in local experts to support research on the community and sustainable practices.

SPIRALS Guiding Steps:

The SPIRALS curriculum is organized into nine lessons called “Spirals”, each with a specific set of learning goals. Mentors can choose from a set of activities or adapt their own activities based on their needs or the availability of local resources to meet those goals. Because the curriculum allows the mentor to decide which activities are appropriate for their learners, the level of challenge or the direction of the experience can be adjusted to best engage and motivate learners. Finally, SPIRALS engages learners by letting them research sustainable practices in their own community and share real stories about sustainability through various forms of communication, such as writing or art projects, group presentations, video production, or audio stories.

Curriculum Overview:

The SPIRALS curriculum is built around 4 core concepts and a few required project elements, the core concepts of sustainability, systems, traditional knowledge and science come through while researching a sustainable practice and the key project elements of a class definition of sustainability, systems maps and final “story” for project assessment.

An afterschool SPIRALS project includes Spirals 4-8 and is about 15 hours of programming. For a longer more complete SPIRALS experience all 9 spirals can be used for around 30 hours or more of class time. However the program can be altered to fit the needs of your group as long as the core concepts and required elements are covered.

Exploring Community and Sustainability (Optional for afterschool programs)

Spiral 1 - What is in My Every day? – Learners explore their communities, daily routines and the connections they have to other people, places and things in their community through making maps.

Spiral 2 - What Sustains Me? – Learners define personal and community sustainability through the exploration of the things they need and want.

Spiral 3 - Understandings About Sustainability in My Community – Learners explore sustainability and the conditions that make it possible. Listing practices in their community and current understanding of how sustainable these practices may or may not be. Classes will come up with a working definition of sustainability.

Researching Sustainable Practices (Required for all groups)

Spiral 4 - Deciding Our Project Together – Learners choose a sustainable practice from their community to study more deeply and find the connections to their sustainable practice.

Spiral 5 - Mapping Our Sustainable Practice - Classes will make a systems map of their practice and begin research into their sustainable practice.

Spiral 6 - Exploring the Sustainability of Our Practice – Learners plan their investigation and collect information to research their practice. Include possible field trips and or visits from local experts.

Spiral 7 - Understanding What We Found – Learners analyze what they have found, draw conclusions and begin to shape the story of their practice.

Telling and Sharing our Stories (Spiral 8 is required and Spiral 9 is optional)

Spiral 8 - Creating Our Stories – Learners create a final product to tell the story of what they learned about their sustainable practice and have the opportunity to upload it to the e-spirals online mapping platform.

Spiral 9 - Sharing our Findings - Learners make a new systems map to reflect what they have learned about their practice, sustainability and systems sharing what they have learned with their class, learning community, local and the SPIRALS community.